

**BERRYVILLE TOWN COUNCIL
MEETING AGENDA
Berryville-Clarke County Government Center
101 Chalmers Court, Second Floor
Main Meeting Room
Regular Meeting
Tuesday, April 14, 2015
7:00 p.m.**

1. **Call to Order** – Wilson Kirby, Mayor

2. **Closed Session** – The Berryville Town Council will enter closed session in accordance with §2.2-3711-A-6, Code of Virginia, in order to discuss probable litigation pertaining to the construction of the Wastewater Treatment Plant.
(ATTACHMENT 1)

Open Session will begin no earlier than 7:30 p.m.

3. **Pledge of Allegiance**

4. **Public Hearings-**
 - a. **Proposed Tax Rates for 2015**
(ATTACHMENT 2)

 - b. **Proposed Water Rate Increase**
(ATTACHMENT 3)

 - c. **Proposed Amendment to Chapter 16 of the Berryville Code Establishing a Transient Occupancy Tax**
(ATTACHMENT 4)

5. **Approval of Minutes-**

March 10, 2015 Regular Meeting
(ATTACHMENT 5)

March 18, 2015 Work Session
(ATTACHMENT 6)

April 7, 2015 Work Session
(ATTACHMENT 7)

6. **Citizens' Forum-**

7. **Report of Mayor** – Wilson Kirby, Mayor

8. **Planning and Zoning Matters** – Christy Dunkle
Monthly Report
(ATTACHMENT 8)

9. **Report of the Town Manager** – Keith Dalton

10. **Standing Committee Reports:**

a) BADA Liaison – Allen Kitselman

b) Budget Finance / CIP – Jay Arnold

- Approval of Committee Meeting Minutes
March 4, 2015
March 11, 2015
(ATTACHMENT 9)

- Finance Monthly Report – Desi Moreland

- Action Items:

1) RE, PP, M&T Tax Rates for 2015

(ATTACHMENT 10)

2) PPTRA Resolution

(ATTACHMENT 11)

3) Transient Occupancy Tax

(ATTACHMENT 12)

- 4) Water Rates/Water and Sewer Fee Schedule
(ATTACHMENT 13)
- 5) Set Public Hearing on FY16 Budget
(ATTACHMENT 14)
- 6) Amendments to Berryville Code Article VII, Cigarette
Tax
(ATTACHMENT 15)
- c) Community Improvements – Allen Kitselman
- d) Planning Commission Liaison- Doug Shaffer
- e) Police and Security – Mary Daniel
 - Police Department Monthly Report – Chief Neal White
(ATTACHMENT 16)
- f) Streets and Utilities – Wilson Kirby
 - Pavement Marking for South Buckmarsh Street
(ATTACHMENT 17)
 - Public Utilities Monthly Report- David Tyrrell
(ATTACHMENT 18)
 - Public Works Monthly Report – Rick Boor
(ATTACHMENT 19)
- g) Personnel / Appointments – Jay Arnold

11. **Other**

12. **Adjourn**

Attachment 1

TOWN OF BERRYVILLE
TOWN COUNCIL
MOTION FOR CLOSED SESSION

DATE: April 14, 2015

MOTION BY:

SECOND BY:

I move that the Council of the Town of Berryville enter a closed meeting in accordance with §2.2-3711-A-6, Code of Virginia, in order to discuss probable litigation pertaining to the construction of the Wastewater Treatment Plant.

VOTE:

Aye:

Nay:

Absent/Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

BERRYVILLE TOWN COUNCIL
MOTION FOR RESOLUTION CONCERNING
CERTIFICATION OF CLOSED SESSION

DATE: April 14, 2015

MOTION BY:

SECOND BY:

I move that the Council of the Town of Berryville adopt the attached resolution regarding certification of closed session.

VOTE:

Aye:

Nay:

Absent

Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

**CLOSED SESSION CERTIFICATION
RESOLUTION OF THE TOWN COUNCIL
OF THE TOWN OF BERRYVILLE**

MEETING DATE: April 14, 2015

MOTION BY:

SECOND BY:

CERTIFICATION OF CLOSED SESSION

WHEREAS, the Council of the Town of Berryville, Virginia, has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of The Virginia Freedom of Information Act; and

WHEREAS, Section 2.2-3712.D of the Code of Virginia requires a certification by this Committee that such closed meeting was conducted in conformity with Virginia law,

NOW, THEREFORE, BE IT RESOLVED that the Committee hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Committee.

VOTE:

Ayes:

Nays:

Absent During Vote:

Absent During Meeting:

Harry Lee Arnold, Jr., Recorder

Attachment 2

TOWN COUNCIL
MOTION FOR APPROVAL: ORDINANCE SETTING TAX LEVIES FOR TAX
YEAR 2015

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville adopt the attached Ordinance setting the tax levies for tax year 2015 amending the Code of the Town of Berryville, Chapter 16- Taxation, Article I – In General, Section 16-1 Annual Tax Assessments; valuation of property.

VOTE:

Aye:

Nay:

Absent/Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

TOWN OF BERRYVILLE
TOWN COUNCIL
AN ORDINANCE SETTING TAX LEVIES FOR TAX YEAR 2015

Date: April 14, 2015

Motion By:

Second By:

BE IT ORDAINED, by the Council of the Town of Berryville, Virginia, that for the tax year 2015 there is hereby levied:

(1) A tax of \$.21 per \$100 assessed valuation on all real estate located within the Town of Berryville, such levy being also applicable to the real estate and tangible personal property of public service corporations;

(2) A tax rate of \$1.25 per \$100 assessed valuation on all taxable, tangible personal property, except machinery and tools, located in the Town of Berryville;

(3) A tax rate of \$1.30 per \$100 assessed valuation on tangible machinery and tools located in the Town of Berryville.

All tax levies shall be due and payable pursuant to the Code of the Town of Berryville, Chapter 16, Article I, Section 16-3.

VOTE:

Aye:

Nay:

Absent:

SIGNED: _____
Wilson L. Kirby, Mayor

Date: April 14, 2015

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

Date: April 14, 2015

Attachment 3

TOWN OF BERRYVILLE
SCHEDULE OF WATER AND SEWER FEES
AND CHARGES

Effective June 24, 2015

I. USER FEES

A. WATER

~~\$8.00~~ **8.40** per 1,000 gallons of usage
\$5.00 per month minimum charge

B. SEWER

\$ 17.00 per 1,000 gallons of usage
\$ 15.00 per month minimum charge

II. DEPOSITS AND ADMINISTRATIVE FEES

A. DEPOSITS

Residential: \$ 225

Business/Commercial (excluding Restaurants and Laundries): \$ 860

Restaurant: \$ 785

Laundry: \$2,450

B. ADMINISTRATIVE FEES

Late Fee: 10% of bill amount

Service Disconnection/Reconnection Fee: \$40

Returned Check/ACH Fee \$25

III. AVAILABILITY FEES

A. WATER

Type of Premises

Charge

1.

Residential:

Single Family Residential individual 5/8" meter \$ 5,250 + meter charge

Town House, Duplex individual 5/8" meter 5,250 per unit + meter
charge

Multi-Family

4,725 per unit + meter
charge

2. Commercial, Industrial, Institutional, & Single Family greater than 5/8" meter:

Water Meter Size (Inches)	Demand Ratio	Avail. Fee	Radio Read Meter Cost
5/8	1.0	\$ 5,250	Meter cost + 30% admin. fee
3/4	1.5	7,825	Meter cost + 30% admin. fee
1.0	2.5	13,125	Meter cost + 30% admin. fee
1.5	4.375	22,970	Meter cost + 30% admin. fee
2.0	8.0	42,000	Meter cost + 30% admin. fee
3.0	16.0	84,000	Meter cost + 30% admin. fee
4.0	25.0	131,250	Meter cost + 30% admin. fee
6.0	50.0	262,500	Meter cost + 30% admin. fee
Greater than 6", Demand Ratio (AWWA M22) multiplied by fee for Demand Ratio 1			

Notes:

- (a) Multi-family residences are defined as any master metered group of apartment, town house, condominium or other residential units with each unit containing separate kitchen facilities.
- (b) In cases where a master meter is serving multi-family residences or a combination of multi-family and commercial units, the applicant will pay a fee based on the higher of (a) an amount derived by multiplying the unit charge of \$5,250 for multi-family residence times the total number of residential and commercial units to be served by a single meter, or (b) an amount based on the meter size as specified above.

B. SEWER

Water Meter Size (Inches)	Demand Ratio	Avail. Fee
5/8 1.0 \$ 22,750	3/4 1.5	34,125
1.0	2.5	56,875
1.5	4.375	99,535
2.0	8.0	182,000
3.0	16.0	364,000
4.0	25.0	568,750
6.0	50.0	1,137,500
Greater than 6" , Demand Ratio (AWWA M22) multiplied by fee for Demand Ratio 1		

IV. **LATERAL or CONNECTION FEES**

A. WATER

Meter Size (Inches)	By Others	By Town
5/8	* (b)	cost + 10% (\$500 min.) & b
3/4	* (b)	cost + 10% (\$500 min.) & b
1.0	* (b)	cost + 10% (\$500 min.) & b
1.5	* (b)	(c) & (b)
2.0	* (b)	(c) & (b)

3.0	* (a) & (b)	(a) & (b)
4.0	* (a) & (b)	(a) & (b)
6.0	* (a) & (b)	(a) & (b)
Greater than 6"	* (a) & (b)	(a) & (b)

B. SEWER

Lateral Size (Inches)	By Others	By Town
4	*	cost + 10% (\$500 min.)
Greater than 4"	*	N/A (d)

Notes:

- (a) = Town of Berryville to furnish and install wet taps to existing mains at cost plus 10%. Contractor to furnish and install lines and vaults.
(b) = Town of Berryville to install meters.
(c) = Town of Berryville to provide 2" service line to property line with 2" ball valve at cost plus 10%. Contractor to furnish and install meter vault and meter setter.
(d) = Installed by contractor if larger than 4" required.
* = Inspection fee applies, see Section V.

V. INSPECTIONS

A. Sanitary Sewer Camera Service & Storm Sewer Camera Service

Mains and Laterals Over 4-Inches in Diameter

Mobilization Fee	\$250
Camera Fee	\$2.50 per linear foot

4-Inch Laterals

Laterals Under 50-Feet in Length	\$100
Laterals 50-Feet in Length or Greater	\$100 plus \$2.50 per linear foot

B. Inspections

Approved Inspector or Town Staff.....	\$ 50 per hour Licensed
Professional Engineer	cost

Notes:

Cleaning lines will be required prior to camera use and is the responsibility of the applicant.

VI. SIGNIFICANT INDUSTRIAL USER FEES

Sewer system discharge permit	\$500
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VII. WATER METER TESTING

5/8" meter	\$40 <u>100</u>
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All other meters\$40 100 + cost

Notes: Fee is refunded if meter is found to be over registering

VIII. UNAUTHORIZED USE OF SERVICE

For unapproved water withdrawals from fire hydrants or any other part of the Town Water System, or when a customer willfully takes steps to reactivate service after service has been disconnected by the town on account of nonpayment of any charge owed to the town and the town is required to take some action to again discontinue service, such as removing the meter, etc., a charge for unauthorized use of service in the amount of two hundred and fifty dollars (\$250) shall be paid. This charge shall be in addition to any other charge for water and sewer utility services owed to the town, as well as any other legal remedies which the town may be able to pursue for unauthorized use of service.

Attachment 4

TOWN COUNCIL
MOTION FOR APPROVAL: ORDINANCE ADOPTING
A TRANSIENT OCCUPANCY TAX

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville adopt the attached Ordinance establishing a Transient Occupancy Tax effective July 1, 2015.

VOTE:

Aye:

Nay:

Absent:

Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

ARTICLE VII. - TRANSIENT OCCUPANCY TAX

Sec. 16-101. - Definitions.

Sec. 16-102. - Penalty for violation.

Sec. 16-103. - Amount and levy.

Sec. 16-104. - Collection.

Sec. 16-105. - Administrative guidelines.

Sec. 16-106. - Reports and remittances.

Sec. 16-107. - Exemptions.

Sec. 16-108. - Advertising payment or absorption of tax.

Sec. 16-109. - Penalty and interest for failure to remit taxes when due.

Sec. 16-110. - Procedure upon failure or refusal to collect taxes or make remittances and reports.

Sec. 16-111. - Preservation of records.

Sec. 16-112. - Cessation of business; report and tax due immediately.

Sec. 16-101. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Hotel shall mean any public or private hotel, inn, apartment hotel, bed and breakfast, hostelry, tourist home or house, motel, rooming house or other lodging place within the town offering lodging for two or more persons at any one time, and the owner and operator thereof, who, for compensation, furnishes lodging to any transients.

Room or space rental shall mean the total charge made by any hotel or travel campground for lodging or space furnished any transient. If the charges made by such hotel or travel campground to transients includes any charge for services or accommodations, in addition to that of lodging, and the use of space, then such portion of the total charge as represents only room and space rental shall be distinctly set out and billed to such transient by such hotel or travel campground as a separate item.

Town shall mean Town of Berryville, Virginia.

Transient shall mean any natural person who, for any period of not more than 30 consecutive

days, either at his own expense or at the expense of another, obtains lodging or the use of any space in any hotel or travel campground for which lodging or use of space a charge is made.

Travel campground means any area or tract of land used to accommodate two or more camping parties, including tents, travel trailers or other camping outfits.

Sec. 16-102. - Penalty for violation.

Any person violating or failing to comply with any of the provisions of this article shall be guilty of a class 3 misdemeanor. Each such violation or failure and each day's continuance thereof shall constitute a separate offense. Such conviction shall not relieve any such person from the payment, collection or remittance of the tax as provided in this article.

Sec. 16-103. - Amount and levy.

There is hereby imposed and levied by the town, in addition to all other taxes, fees, and charges of every kind, now or hereafter imposed by law, a tax in the amount of four percent of the total amount paid for room or space rental to any hotel or travel campground.

Sec. 16-104. - Collection.

Every person receiving any payment of room or space rental with respect to which a tax is levied under this article, shall collect the amount of tax hereby imposed from the transient on whom the same is levied or from the person paying for such room or space rental, at the time payment for such rooms or space is made, and the tax shall be paid to the town.

Sec. 16-105. – Delegation of Administration

The town treasurer is hereby delegated the authority to administer all provisions of this article.

Sec. 16-106. - Reports and remittances.

The person collecting any tax levied under this article shall make out a report upon forms, setting forth information as the town treasurer may prescribe and require, showing the amount of room or space rental charges collected and the tax required to be collected, and shall sign and deliver the same, along with a remittance of such tax, to the town treasurer. Such reports and remittances shall be made to the town treasurer on or before the 20th day of the calendar month following the month being reported.

Sec. 16-107. - Exemptions.

No tax shall be payable under this article on room or space rental paid to any hospital, medical clinic, convalescent home or home for the aged. No tax shall be payable under this article on individually owned single-family homes or condominium units which are rented through an agency which provides advertising, reservations, housekeeping, accounting, and/or check-in services.

Sec. 16-108. - Advertising payment or absorption of tax.

No person shall advertise or hold out to the public in any manner, directly or indirectly, that all or any part of a tax imposed under this article will be paid or absorbed by him or by anyone else, or that he or anyone else will relieve any purchaser of the payment of all or any part of such tax.

Sec. 16-109. - Penalty and interest for failure to remit taxes when due.

If any person whose duty it is to do so shall fail or refuse to remit to the town treasurer the tax required to be collected under this article, within the time and in the amount specified in this article, there shall be added to such tax by the town treasurer a penalty as set from time to time by the town council. In addition, there shall be added to such unpaid tax interest at a rate as set from time to time by the town council on the amount of tax delinquent, such interest to commence on the first day of the month following the month in which such taxes are due. For the second and subsequent years of delinquency, interest shall be imposed at the rate established pursuant to section 6621 of the Internal Revenue Code of 1954, as amended, or at a rate as set from time to time by the town council, whichever is greater.

Sec. 16-110. - Procedure upon failure or refusal to collect taxes or make remittances and reports.

If any person whose duty it is to do so shall fail or refuse to collect the tax imposed under this article or to make within the time provided in this article the reports and remittances required by this article, the town treasurer shall proceed in such a manner as he may deem best to obtain the facts and information as he is able to obtain upon which to base the assessment of any tax payable by any person who has failed or refused to collect such tax or to make such report and remittance. The town treasurer shall proceed to determine and assess against

such person such tax and penalty by registered mail at his last known place of address of the amount of such tax and interest and penalty and the total amount thereof shall be payable within ten days from the date of such notice.

Sec. 16-111. - Preservation of records.

It shall be the duty of every person required by this article to pay to the town the taxes imposed by the article to keep and to preserve for a period of two years records showing all purchases taxable under this article, the amount charged the purchaser for each purchase, the date thereof, the taxes collected thereon and the amount of tax required to be collected by this article. The town treasurer or duly authorized agents shall have the power to examine such records at reasonable times and without unreasonable interference with the business of such person, for the purpose of administering and enforcing the provisions of this article and to make transcripts of all or any parts thereof.

Sec. 16-112. - Cessation of business; report and tax due immediately.

Whenever any person required to collect and pay to the town a tax under this article shall cease to operate and shall otherwise dispose of his business, any tax payable under the provisions of this article shall become immediately due and payable. Such person shall immediately make a report and pay the tax due.

Attachment 5

MINUTES
BERRYVILLE TOWN COUNCIL
Tuesday, March 10, 2015
Berryville-Clarke County Government Center
Regular Meeting
7:30 p.m.

Town Council:

Present: Wilson Kirby, Mayor; Harry Lee Arnold, Jr., Recorder; Allen Kitselman; Mary Daniel; Douglas Shaffer; David Tollett

Staff: Keith Dalton, Town Manager; Christy Dunkle, Assistant Town Manager/Planner; Desiree Moreland, Assistant Town Manager/Treasurer; Neal White, Chief of Police; Ann Phillips, Town Clerk

Press: Val Van Meter, Winchester Star

1. Call to Order

Mayor Kirby called the meeting to order at 7:30 p.m.

2. Pledge of Allegiance

3. Public Hearing - ***Application for a Community Development Block Grant to support the completion of housing quality, home accessibility/repairs, and infrastructure improvements in the Josephine City Neighborhood.***

At the Mayor's request the Town Clerk read the published public hearing notice. Ms. Dunkle briefly explained the CDBG process, and referenced a January 2014 letter from the Town asking the County to transfer the grant application process from the County's hands to the Town.

Stephanie Langton of the Northern Shenandoah Valley Regional Commission thanked the Council for having the Regional Commission representatives at the meeting. She reiterated that the Community Development Block Grant (CDBG) program is a federal program which has three national objectives: the first is to give maximum feasible priority to activities which benefit low and moderate income families, the second is to aid in the prevention or elimination of slums and blight and the third is to meet urgent needs. She said the proposed application aligns with the CDBG national objective to benefit low and moderate income households. Ms. Langton said within the program there are five primary types of Competitive Community Improvement Grants including Comprehensive Community Development, Economic Development, Housing, Community Facilities and Community Service Facilities. She said this grant application is a Comprehensive Community Development project which includes activities that target substandard housing and at least one other eligible CDBG activity. Ms. Langton said activities to address housing needs must be the most significant in budgetary terms element of a Comprehensive Community Development project, and this application conforms to the priority emphasis on housing.

Ms. Langton further explained that the application includes the following eligible activities: Owner Occupied Housing Rehabilitation and Street Improvements and Drainage Improvements, specifically Home repairs at 14 units along the street, sidewalk repair, vegetative screening for sound mitigation and safety along the railroad and improvements to private and public property to address drainage issues with rain water discharge. She added it is important to note that the application does not address the five vacant structures on Josephine Street. She said grant funds are not permitted to support home repair for properties that have been vacant for more than 12 months, so any improvements to these properties are not eligible under the program. Ms. Langton noted that property owners of these structures have granted permission to a volunteer team to assess their current conditions and offer recommendations.

Ms. Langton added that other activities that are not CDBG eligible may occur during the project. She said an application has been submitted and has made it through the first application review for AmeriCorps volunteers to assist with property maintenance and improvements to the Milton Valley Cemetery; exterior improvements to private property owners whose income makes them ineligible for CDBG funds; and other maintenance efforts on private properties in the neighborhood including yard work, tree pruning, and other similar activities. She concluded by saying there are portions of the application that require additional information. She said that after the assessment team meets on Saturday, March 14, 2015 they hope to have recommendations on four of the five structures. She added that if the respective families decide demolition is the best course of action, CDBG funds may be used for blight remediation.

The Mayor asked the Rev. James Page of the management team to speak. Mr. Page said that the main objective of the grant is to get houses up to standard. The team wanted to get the community involved to make their street look as nice as other town streets. Mr. Page added that it has been a joy to get all the entities to work together. He added that there are other things on the street that they wish could be done, but that the grant's parameters won't address all the issues.

Mayor Kirby stated that while typically the Town Council allows three minutes for each speaker at public hearings, because of the complexity of this application, each speaker would be permitted up to five minutes speaking time. Mayor Kirby opened the public comment period and recognized the speakers from the public hearing signup sheet.

The Mayor recognized Kenneth Liggins of 206 Josephine Street, Berryville. Mr. Liggins said that he was filing a criminal complaint and asked the Council not to move on the grant application until the complaint had been investigated. He provided the Clerk with a packet of documents.

Mayor Kirby recognized Pat Dickinson of 413 Montgomery Court, Berryville. Ms. Dickinson said she is in favor of the grant, and that it will help improve the street which will in turn improve the whole community.

The Mayor recognized Michael Hobert of 126 South Church Street. Mr. Hobert noted that he was a member of the Board of Supervisors representing most of the Town of Berryville. He thanked the Town, especially Council Member Kitselman and Ms. Dunkle for all the time and effort spent on the grant application. He added that Ms. Shickle and Ms. Langton of the Regional Commission helped the understanding of the process. Mr. Hobert said the team had walked Josephine Street and also did a visioning exercise to determine what the residents wanted. He added that a plan was developed and preliminary costs were determined by the engineers. Mr. Hobert said that it was inspiring to see the participation of the residents and, while there was not always agreement during discussions, the process was fair, open, and productive. He said that he gave total support to the grant application.

There being no others wishing to speak, the Mayor closed the public hearing.

4. Approval of Minutes

Upon motion by Council member Kitselman, and seconded by Council member Daniel, the minutes of the January 13, 2015, meeting were approved by the following vote:

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye
Douglas Shaffer	- Abstain
David Tollett	- Aye

5. Citizens' Forum

Mayor Kirby recognized Kimber Herron of 1146 John Mosby Highway. Mr. Herron said that he was representing the Farmers' Market and was requesting use of the municipal parking lot for the market on Saturdays from May 2 through October 31, from 8:00 a.m. until noon. He added that there are usually about 20 to 25 vendors. Mr. Herron thanked the Berryville Police Department for helping on Friday evenings by taping the lot closed, and also thanked the Barns of Rose Hill for providing storage for a few items such as tables used at the market.

The Mayor recognized Kate Petranec, 2208 Castleman Road, who stated that she was a volunteer director, filling in for Christina Kraybill and Luanne Carey, of Berryville Main Street. She said that she was asking the Town to apply for the Virginia Commission for the Arts' Local Government Challenge Grant for the fifth time. Ms. Petranec added that the grant helps fund the Fire House Gallery, allows Berryville Main Street to provide arts-related programs bringing people downtown, and also allows programs honoring specific artists.

Mayor Kirby recognized Dan Garrett of 303 Archer Court. Mr. Garrett referenced the senior housing proposal by Marlyn Development. He said that the issue of emergency services was raised at the recent BADA meeting. In his meeting with emergency services representatives, he said he was reminded of discussions in 2006 regarding additional services necessary for senior housing units. At that time, he said, staffing issues were a concern, and fee for service was a distant thought. Mr. Garrett noted that now the same issues are being discussed, but that

what is new is the hiring of a County Emergency Services Director to oversee the situation, and that fee for service is here. He added that the Marlyn Development proposal is a good value for the community. He said he was weary of discussions and half-truths at public meetings.

The Mayor recognized Alton Echols of 400 Custer Court. Mr. Echols said he has been interested in senior housing for 25 years. He noted that he pioneered small, medium, and large houses where someone can stay even in a wheelchair, and now he wants to do similar units in apartments. He said that many seniors, ages 75 to 95, currently live in homes with steps. Mr. Echols said the growth of the senior population will have a positive fiscal impact for the County and Town since even nursing homes pay their own way and provide jobs.

6. Report of the Mayor

Mayor Kirby called on Josh Roller of Robinson, Farmer, Cox Associates. Mr. Roller presented the Town's Comprehensive Annual Financial Report.

7. Planning and Zoning

a) Ms. Dunkle referenced the draft CDBG application and Draper Aden preliminary engineering report. Mr. Dalton asked Ms. Dunkle to review the part of the application that is not complete. Ms. Dunkle said final information will be gathered at a meeting this coming Saturday organized by Council member Kitselman. She said that any remaining needs will be addressed. Specifically, she noted the several blighted properties, five of which have been vacant more than 12 months, are ineligible to receive CDBG grant funding. Council member Kitselman thanked the professionals who have agreed to do this work pro bono.

At the Mayor's request the Clerk read to draft resolution.

Draft Resolution
Town of Berryville, Virginia
A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF BERRYVILLE, VIRGINIA

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CDBG GRANT ENDORSEMENT RESOLUTION

WHEREAS, the Virginia Department of Housing and Community Development (DHCD) is currently soliciting for applications for funding through the Virginia Community Development Block Grant (CDBG) Program, and

WHEREAS, the CDBG Program offers the opportunity to eligible units of local government to seek funding through the Community Improvement Grant (CIG) category, and

WHEREAS Town of Berryville, Virginia wishes to submit a "Comprehensive Community Development" Application under the CIG application in an amount not to exceed \$1,000,000 in support of the Josephine City Neighborhood Improvement Project, which is due March 25, 2015; and

WHEREAS the application will include pending allocation of \$40,000 through the HOME Consortium, NSV for home repair activities and assignment of AmeriCorps VISTA volunteers to aid in CDBG-ineligible home repair and neighborhood improvement activities as additional leveraged funding and resources in support of the project; and

WHEREAS, the Town hosted two Public Hearings regarding the proposed CDBG application pursuant to DHCD requirements on January 29, 2015 and March 10, 2015, advertising both as appropriate, and

WHEREAS, the project application includes activities that are CDBG eligible and fall within the CDBG National Objectives pursuant to Section 104(b)(3) of the Housing and Community Development Act of 1974 and the DHCD priorities for allocation of CDBG, and

NOW, THEREFORE, BE IT RESOLVED, that the Town Council of the Town of Berryville, Virginia, does hereby support a grant application to VDHCD for CDBG funding not to exceed \$1,000,000 to help complete the comprehensive community development project in Josephine City Neighborhood; and

BE IT FURTHER RESOLVED, that the Town Council of the Town of Berryville, Virginia does hereby authorize the Town Manager to sign all necessary documents to execute the application, grant reports and grant contract.

Council member Daniel said she appreciated the management team participation and thanked them for attending the public hearing. **Council member Kitselman moved the Council of the Town of Berryville approve the aforementioned resolution authorizing the Town Manager to sign the necessary documents to execute the application (as amended), grant reports and grant contract. Recorder Arnold seconded the motion which carried on the following vote:**

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye
Douglas Shaffer	- Aye
David Tollett	- Aye

b) **Recorder Arnold moved that the Council of the Town of Berryville authorize the Town Manager to sign and submit the application for the Virginia Commission for the Arts' Local Government Challenge Grant identifying Berryville Main Street as the recipient of the grant, requiring that all marketing material include both Virginia Commission for the Arts (VCA) and National Endowment for the Arts (NEA) logos for projects funded with this grant, per the terms of the VCA, and that matching grant funds shall be appropriated from the Town's annual contribution to Berryville Main Street. Council member Daniel seconded the motion which carried by the following vote:**

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye

Douglas Shaffer	- Aye
David Tollett	- Aye

8. Report of the Town Manager

Mr. Dalton introduced the Water and Sewer Billing Adjustment policy. He said the current water and sewer billing adjustment policy was adopted on March 8, 1994 and, if adopted, the proposed policy would replace the existing one. He further explained that the proposed policy differs from the existing policy in the following ways:

- The purpose of the policy is provided.
- Customer responsibility for water and sewer laterals and the like is identified.
- The adjustment request review procedure is clarified.
- The adjustment review criteria is clarified.
- The review criteria for usage attributable to use by interior plumbing has been amended to permit adjustment of sewer bills for leaks where it can be proven that the water in question did not enter the Town's sewer system.
- The Town's meter testing policy has been added to the document.
- The appeals process has been clarified and establishes two specific instances in which a determination can be appealed. These instances are where the customer feels the Town has erred in the review of the adjustment request or where the Town has failed to review an adjustment request in a timely manner.
- The customer's responsibility for the payment of their bill during the review period is established.

He said these changes are proposed to make the policy clearer and to provide for relief when property owners are faced with an interior leak in which it can be proven the water did not enter the Town's sewer system. In addition, he said the Water and Sewer Billing Adjustment Request Form has been cleaned up and an acknowledgement has been added.

Mr. Dalton said the proposed policy was reviewed by the Streets and Utilities Committee at their meeting on February 27 and at that time the Committee directed staff to complete the draft, including the amendment to the criteria for adjustment of sewer bills for usage associated with interior plumbing, and submit it to the full Council at the March 10 meeting. The committee also expressed concern that the meter testing fee (\$40) is too low and does not come close to covering Town Costs. Mr. Dalton said discussions with Public Works staff have revealed that the cost for a test (staff time/equipment costs to: pull meter and install a temporary meter, drive to Winchester to drop off meter, return to Winchester to collect the meter and results, and to remove the temporary meter and reinstall the original meter) is closer to \$100.

Proposed Policy
TOWN OF BERRYVILLE
Water and Sewer Billing Adjustment Policy

Purpose:

This policy applies to the adjustment of unusually high water and sewer bills resulting from water leaks or other circumstances resulting in abnormally high water usage. This policy enumerates the authority of the Town Manager, or designee, to grant adjustment of unusually high water and sewer bills upon request of the person or entity responsible for a water account.

Background:

Where properties are connected to the Town of Berryville's water and sewer systems, the customer is responsible for: 1) the proper provision, monitoring, operation, maintenance, repair, and replacement of all water lines and components of the system from the customer's side of the water meter and 2) the proper provision, monitoring, operation, maintenance, repair, and replacement of all sewer lines and components of the system from where it intersects the Town's main.

Procedure:

All requests for bill adjustment must be made within ten days of the billing date utilizing the Town of Berryville Water and Sewer Billing Adjustment Request Form. The customer must also provide a plumber's certification and, when the abnormal usage is greater than three-times the account's average usage, a letter from the property owner's insurance company verifying that a claim has been made in this matter and providing what portion of the water/sewer bill will be paid by the insurance company.

The Town Manager, or designee, will review the request and provide written notice of his/her decision. Most decisions will be rendered within ten days of receipt of the adjustment request.

Only one bill adjustment may be made for any account in any given twelve month period.

Review Criteria:

The Town Manager, or designee, will review adjustment requests in accordance with the following criteria:

- For leaks occurring in the service line between the water meter and the building the meter serves, the Town may approve adjustment to the sewer usage if it is found that the leaking water did not enter the sewer system. Such adjustment may not exceed the difference between the account's average usage over the past twelve months and the high usage resulting from the leak. The Town may approve adjustment to the water usage if it finds that the leak was repaired in a timely fashion after discovery. Such adjustment may not exceed one-half of the difference between the account's average usage over the past twelve months and the high usage resulting from the leak.
- For leaks or unintended usage from exterior hose connections, the Town may approve adjustment to the sewer usage if it finds that the leaking water did not enter the sewer system. Such adjustment may not exceed the difference between the account's average usage over the past twelve months and the high usage resulting from the leak.

- For abnormal water usage attributable to usage in or by faucets, pipes, water heaters, furnaces or other interior plumbing facilities within the building the water meter serves, the Town may adjust the sewer usage if it finds that the leaking water did not enter the sewer system. Such adjustment may not exceed the difference between the account's average usage over the past twelve months and the high usage resulting from the leak.
- The Town will not approve adjustments for abnormal water usage attributable to filling of pools or watering of lawns or landscaping.
- The Town will not approve adjustments for abnormal water usage which has not or cannot be sufficiently explained.

When reviewing adjustment requests the Town will take into account, among other factors, whether any of the usage resulted from another party's negligence. Where negligence is found the Town may determine that no adjustment is warranted. As a part of request reviews the Town will also consider the insurance claim determination as a part of establishing an adjustment amount.

Meter Testing:

Customers may at any time request that their water meter be tested for accuracy. If a customer wants to have the water meter that serves their account to be tested, then they must contact the Town Business Office and request the test. At the time of the request the customer must pay a meter testing fee as established by the Town Council. The fee in question will be refunded if it is found that the meter in question does not meet American Water Works Association standards for accuracy. Further, if it is found that the meter does not meet American Water Works Association standards for accuracy then the Town will review the account for possible adjustment.

Appeals:

If the customer requesting the bill adjustment believes that the Town has erred in making the adjustment decision or has not made a determination on an adjustment request in a timely manner, then he/she may appeal the matter to the Town Council. This appeal must be made in writing within ten days of the date of the decision on the adjustment or within thirty days of the original request if the appeal is based on the Town's failure to render a decision on the review request. If the appeal is based on the belief that the Town erred in making its decision on the bill adjustment request, then the appeal request must specify the finding of fact or policy application the requester believes was made in error.

Adjustment determinations made because a meter has been found to be inaccurate (after testing) may be appealed to the Town Council if the customer believes that the adjustment is not sufficient.

The Town Council will review all adjustment appeals and will provide written notice of their decision to the customer.

Customer Responsible for Payment during Review:

While an adjustment request and/or appeal is being processed, the customer is responsible for payment of the entire amount due within the normal payment period or the customer may enter into a payment agreement with the Town. If the customer neither makes full

payment during the normal payment period nor enters into a payment plan with the Town, then the customer is subject to all applicable collection activities and termination of service.

Burden of Proof:

The implicit burden of proof in the adjustment request pursuant to these policies rests with the customer, not the Town of Berryville. Failure to comply with the requirements of this policy will result in the denial of the adjustment request.

Effective Date:

March 12, 2015

Council member Daniel asked if adopting the new policy would affect any pending requests. Ms. Moreland said there were no requests pending, and if adopted, the policy would be in effect immediately. **Council Member Shaffer moved that the Council of the Town of Berryville repeal the existing water and sewer billing adjustment policy and adopt the aforementioned water and sewer billing adjustment policy, and increase the water meter test fee from \$40.00 to \$100.00. Council member Kitselman seconded the motion which carried as follows:**

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye
Douglas Shaffer	- Aye
David Tollett	- Aye

Mr. Dalton said he attended a meeting on House Bill 2 regarding transportation funding, and provided a copy of the PowerPoint presentation to Council members. He said many local people fear the Tidewater and Northern Virginia regions are taking most of the transportation dollars leaving little for the outlying areas. Mr. Dalton noted that if the Town Council wanted to provide comment on the matter then it should be addressed at the April Town Council meeting.

Mr. Dalton announced that the new web site is nearing completion, and will be live within a few weeks.

Mr. Dalton said Council has been asked to reappoint Chief Neal White to the Old Dominion Alcohol Safety Action Program Board and the Old Dominion Community Criminal Justice Board. **Council member Daniel moved to reappoint Chief White to the Old Dominion Alcohol Safety Action Program Board and the Old Dominion Community Criminal Justice Board for three year terms. Council member Tollett seconded the motion which carried as follows:**

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye
Douglas Shaffer	- Aye
David Tollett	- Aye

9. Standing Committee Reports

a) BADA Liaison

Council member Kitselman said there will be a Berryville Area Development Authority work session on March 30, 2015, at 2:00 p.m., to discuss the Berryville Area Plan update.

b) Budget and Finance

Recorder Arnold said the Committee met last week and will meet again on March 11, 2015. He added it appears that a tax increase may be necessary. **Recorder Arnold moved that the Council of the Town of Berryville set a Public Hearing for April 14, 2015 regarding water service charges pursuant to Chapter 17, Article IV, Section 17-49 of the Code of the Town of Berryville. Council member Daniel seconded the motion which carried as follows:**

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye
Douglas Shaffer	- Aye
David Tollett	- Aye

Recorder Arnold moved that the Council of the Town of Berryville set a Public Hearing for April 14, 2015 to set the tax levies for tax year 2015 amending the Code of the Town of Berryville, Chapter 16- Taxation, Article I – In General, Section 16-1 Annual Tax Assessments; valuation of property. Council member Daniel seconded the motion which carried as follows:

Wilson Kirby	- Aye
Harry Lee Arnold, Jr.	- Aye
Mary Daniel	- Aye
Allen Kitselman	- Aye
Douglas Shaffer	- Aye
David Tollett	- Aye

c) Community Improvements

Council member Kitselman had nothing to report.

d) Planning Commission Liaison

Council member Shaffer had nothing to report.

e) Police and Security

Council member Daniel announced that a new patrolman, Joseph Shoremount, has been hired. She added that Patrolman Joey Adams has celebrated 25 years of service with the Berryville Police Department.

f) Streets and Utilities

Council member Shaffer moved for approval of the Streets and Utilities Committee meeting minutes of February 27, 2015. Mayor Kirby seconded the motion which carried unanimously.

Mr. Dalton noted the Public Utilities and Public Works monthly reports are included in the agenda packet. He added he wanted to mention specifically the efforts of the utilities crews during the recent extreme winter weather. Mr. Dalton said there had been some problems this winter that have not been seen in previous years including the freezing of two laterals. He said the crews had done an excellent job under difficult conditions.

g) Personnel / Appointments

Recorder Arnold had nothing to report.

10. Other

Mayor Kirby said he had an email on two issues which he wished to have placed on the April agenda: the Barns of Rose Hill has asked that the rent on the Smithy House be waived, and the Barns has asked for approval for placing a directional sign on Main Street prior to an event.

9. Adjourn

There being no further business, upon motion by Council member Daniel, seconded by Council member Kitselman and passed, the Council meeting was adjourned at 8:48 p.m.

Wilson Kirby, Mayor

Harry Lee Arnold, Jr., Recorder

Attachment 6

BERRYVILLE TOWN COUNCIL
Wednesday, March 18, 2015
Berryville-Clarke County Government Center
Budget Work Session
4:00 p.m.

MINUTES

Roll:

Town Council:

Present: Wilson Kirby, Mayor, Harry Lee Arnold, Jr., Recorder; Allen Kitselman, David Tollett, and Mary Daniel; Absent: Douglas Shaffer

Staff: Keith Dalton, Town Manager; Desirée Moreland, Assistant Town Manager/Treasurer, W. Neal White, Chief of Police, Ann Phillips, Town Clerk

Press: Val VanMeter, Winchester Star

1. Call to Order

Mayor Kirby called the meeting to order at 4:02 p.m.

2. Pledge of Allegiance

3. Review Draft FY 16 Budget

The Mayor called on staff to review the proposed budget. Mrs. Moreland gave an overview of revised budget revenues which include a recommended proposed increase in Real Estate (\$.136/\$100 to \$.23/\$100) tax rates, proposed increase in Personal Property (\$1.05/100 to \$1.25/100) tax rates, proposed implementation of a 4% Lodging Tax, and proposed increase in Water Treatment fees (\$8.00/TG to \$8.40/TG).

Mr. Dalton said the Lodging Tax, or Transient Occupancy Tax had been discussed and suggested that Council set a public hearing on the matter for the April meeting if all agreed. Recorder Arnold asked about the projected income of the tax, and Mrs. Moreland responded that it would be about \$35,000. A public hearing was set for the April Town Council by consensus.

Recorder Arnold said when the Budget and Finance Committee met and discussed budget cuts, they decided funds for the Police Department should not be cut—the Committee would like to keep 9 officers and the planned software upgrading. He added they would also like to add auto defibrillators to the police cars at \$3300.00, starting with at least one vehicle if all are not affordable. Recorder Arnold said the Committee also wants to add to the reserve fund.

Council member Tollett said he does not disagree with the funding as presented, but he is not comfortable with the increase as proposed. He suggested cutting back on the contribution to Enders Fire Company and Clarke County for an EMT position this year. Recorder Arnold disagreed saying that Enders has done all the fund raisers it could, and cutting the \$25,000 donation would have a dramatic effect. He added that fire and rescue was the wrong place to cut, and that pay raises should be where the cuts are. Mrs. Moreland said that cost of living and market increases will be about \$50,000.

Recorder Arnold discussed dropping the real estate tax increase from \$.23 to \$.21 which would cut putting anything in reserves.

Mayor Kirby said that the budget process has always gone smoothly, but this time he recommends sending the budget back to the Committee to see if cuts can be made to arrive at a less severe increase that the Council would approve of.

Recorder Arnold said he wanted direction on what amount the Council would be looking for.

(Council member Daniel entered the meeting at 4:25 p.m.)

Mr. Dalton said that the public hearing has to be advertised, so the rate needs to be determined.

Council member Daniel said she has been hearing from constituents that they prefer a tax increase over a fee for trash pickup.

The Mayor said it would be fine to advertise the highest rates discussed allowing a lower rate to be adopted if desired.

Mrs. Moreland said the charge for trash collection was discussed in lieu of some portion of the tax increase. It would be \$5.00/month per household totaling about \$85,000. Recorder Arnold said he was not in favor of the fee.

The Mayor asked if the Fire & Rescue contribution were cut 50%, what effect would it have on the real estate tax rate. Mrs. Moreland replied it would reduce the increase by \$.01.

Recorder Arnold said that fee for service is not guaranteed. The County has agreed not to cut its contribution and he hopes the Town will not reduce theirs either. He said he would rather cut \$.02 and go with no reserves contribution.

Council member Tollett asked if the Town was obligated to donate to Fire and Rescue.

Mr. Dalton said that Fire and Rescue is a County function. He added that the Town had stepped in to assist several years ago as a stopgap, but there was no determination that it was un-ending.

Council member Kitselman said he was not in favor of cutting Fire & Rescue spending. He suggested a \$.022 tax increase which would put \$45,000 in reserves.

By consensus the Council decided to advertise the hearing for a \$.023 real estate tax rate, and asked the Treasurer to work up a budget with a \$.022 real estate tax rate.

The Council agreed to meet again on April 7 at 4:00 p.m.

4. Adjourn

There being no other business, upon motion by Council member Tollett, seconded by Council member Kitselman, the meeting was adjourned at 4:58 p.m.

Attachment 7

BERRYVILLE TOWN COUNCIL
Tuesday, April 7, 2015
Berryville-Clarke County Government Center
Budget Work Session
4:00 p.m.

MINUTES

Roll:

Town Council:

Present: Wilson Kirby, Mayor, Harry Lee Arnold, Jr., Recorder; Allen Kitselman, David Tollett, and Mary Daniel, Douglas Shaffer

Staff: Keith Dalton, Town Manager; Desirée Moreland, Assistant Town Manager/Treasurer, W. Neal White, Chief of Police, Ann Phillips, Town Clerk

1. Call to Order

Mayor Kirby called the meeting to order at 4:00 p.m.

2. Pledge of Allegiance

3. Review Draft FY 16 Budget

The Mayor called on staff to review the proposed budget. Mrs. Moreland gave an overview of several budget revenue scenarios. She said Scenario A which had been discussed at the first work session includes the police server purchase, nine sworn positions in the Police Dept., funds for police software and \$100,000 for the fund balance. She said Scenario B was the same except that the fund balance figure is \$50,000. Mrs. Moreland said that Scenario C includes a 2.5% COLA increase for employees (as did Scenario A and Scenario B) and \$50,000 for the fund balance, while Scenario D reduced the COLA to 2% with \$40,000 for the fund balance. She said that Scenario L was generated when the Police Dept. software price became lower than anticipated allowing the Scenario C numbers to be used with \$50,000 for the fund balance, and including the hazardous duty supplement for officers.

Recorder Arnold said there have been many budget meetings this year and that he has learned a lot. He said he is in favor of Scenario L because it allows the Town to offer the VRS hazardous duty supplement to law enforcement personnel. He added that this helps keep the Town from losing trained officers.

Council member Daniel entered the meeting at 4:08 p.m.

Mr. Dalton pointed out the expected annual cost of the hazardous duty supplement. He noted that this increase not only affected the general fund but also the water fund and sewer fund. He informed the Town Council that this could represent an increase of eight to 10 cents on the water rate and 10 to 12 cents on the sewer rate. Mr. Dalton added that this will have to be addressed in rates next year.

Council member Tollett questioned the retirement age under the proposed Hazardous Duty Supplement. Chief White responded that it is age 50 with 25 years of service. Council member

Daniel said without the hazardous duty supplement, the Town had been losing good officers to other jurisdictions.

Council member Kitselman asked if the police department was down by two officers. Chief White responded yes, and said there is also another officer on medical leave making scheduling very difficult. Council member Kitselman said he agreed with others on the Council that Scenario L is the best choice since it keeps the police department fully staffed and keeps some money in the contingency fund.

4. Other

Mr. Dalton said that he wanted to discuss the Josephine City Neighborhood CDBG application and asked for Council input regarding the Town requesting an extension to file the application. He said he wants someone from the Department of Housing and Community Development to come and address the management team. The Council agreed by consensus that the extension should be accepted by the Town.

Mr. Dalton noted that he and many others very recently became aware of that the grant included loans with payments being made to the Town. Council member Kitselman asked in light of the loans if there were any interest among the residents in continuing to take advantage of the grant. Mr. Dalton said yes, but that the applicants had fallen from around 11 to 3. Mr. Dalton recognized Council member Kitselman and the Rev. James Page for all the work they had done on the grant application.

Council member Daniel asked if staff had received the requested financial documents from Berryville Main Street. Staff responded no. Council member Daniel said she wanted to have the documents before Council appropriates more money for the organization.

5. Adjourn

There being no other business, upon motion by Council member Kitselman, seconded by Council member Daniel, the meeting was adjourned at 4:32 p.m.

Attachment 8

Planning and Community Development

Action Items

Text Amendment to Berryville Zoning Ordinance and Berryville Area Plan – Multifamily Senior Units

Call Bond Proceeds – Chamberlain and McClellan streets and Section 4B Battlefield Estates

Construction Standards and Specifications Manual Update

April 14, 2015

Planning Commission

The Planning Commission held a meeting on Tuesday, March 24, 2015. They approved the Clarke County High School site plan amendment as presented, discussed senior housing needs and the Berryville Area Plan update and uses in the Business Park Zoning District. Their next scheduled meeting is Tuesday, April 28, 2015 at 7:30pm.

Berryville Area Development Authority

The BADA held a work session on Monday, March 30, 2015 at 2:00pm. They determined that they would like to continue with the Berryville Area Plan update rather than modify the existing Plan to allow for additional age-restricted multifamily units in the OPR district. Their next meeting is scheduled for Wednesday, April 23, 2015 at 7:00pm.

Architectural Review Board

The Architectural Review Board met on Wednesday, April 1, 2015. They reviewed the following items:

Sign Review

Cordelia A. Niemann, Owner, is requesting a Certificate of Appropriateness in order to replace a projecting sign at her business, The Blue Ridge Studio, located at 5 East Main Street, identified as Tax Map Parcel number 14A5-(A)-75, zoned C General Commercial. *Approved as presented.*

Architectural Review

Gregory Lee, Greg Lee Builders LLC, Applicant, is requesting a Certificate of Appropriateness in order to replace a storage shed located at 308 West Main Street, identified as Tax Map Parcel number 14A1-(3)-1, zoned R-1 Residential. *Approved as presented.*

Their next meeting is scheduled for Wednesday, May 7, 2015. They have moved the time to 12:30pm in order for Board members to more easily get to the meeting.

Board of Zoning Appeals

The BZA did not hold a meeting since the last Council meeting.

BERRYVILLE TOWN COUNCIL
Older Person Residential Zoning in Annexation Area B
April 14, 2015

Town Council, at the March 10, 2015 meeting, adopted a resolution in support of the study of additional multi-family units in the Older Person Residential (OPR) zoning district.

Following is the resolution adopted at the March 10, 2015 meeting:

A RESOLUTION: SUPPORT FOR THE STUDY OF ADDITIONAL
MULTIFAMILY UNITS IN THE OLDER PERSON RESIDENTIAL
ZONING DISTRICT OF ANNEXATION AREA B

WHEREAS, the Berryville Area Plan currently allows for a total of 120 units of multifamily housing in Annexation Area B with a total of 60 remaining to be developed; and

WHEREAS, the Council of the Town of Berryville acknowledges the potential need for additional income- and age-restricted multifamily units in response to current demographic trends; and

WHEREAS, Marlyn Development wishes to develop a 120-unit multifamily apartment complex requiring modifications to the Berryville Area Plan and the Berryville Zoning Ordinance to allow 60 additional units of this type;

NOW, THEREFORE, BE IT RESOLVED that the Council of the Town of Berryville, Virginia hereby sponsors the request to study whether the Berryville Area Plan and the Town of Berryville Zoning Ordinance should be amended to allow an additional 60 units of multifamily apartments, but not an expansion of the established 300 OPR unit overall limit, and refers these matters to the Berryville Area Development Authority and the Town Planning Commission for review and recommendation to the Berryville Town Council and the Clarke County Board of Supervisors.

Berryville Area Development Authority

The Berryville Area Development Authority held a work session on Monday, March 30, 2015. As a part of the Berryville Area Plan (BAP) update they discussed the process to address Marlyn Development's request to add 60 additional multifamily units in the OPR district for a total of 180. BADA members in attendance voted unanimously to not consider a Plan amendment to modify the number of multifamily units in the OPR district, but to expedite the review process of the Plan to complete it in a reasonable timeframe.

Work Session Topics

There was a discussion at the work session identifying existing age- and income-restricted multifamily units in the Town. Staff discussed other properties including Washington Square and Johnson-Williams Apartments that offer similar housing opportunities. The conversation also included previous and potential development efforts

in the Institutional zoning district including 28 additional units at Johnson-Williams Apartments and the possibility for low- to moderate-income housing identified as a Special Permit Use in the ITL district, specifically on West Main Street. Similar to the discussion with Planning Commissioners, Development Authority members voiced concern about ensuring a variety of senior housing options and the potential adverse effect on this goal if additional alternative housing types were shifted to multifamily.

Continued discussion included current goals and objectives identified in the BAP. Authority members requested Staff to update these sections as part of the Plan review with proposed draft language including the variety of housing identified for seniors; a definition of “adequate housing”; and new impacts that may be caused by future development.

Emergency Services

Representatives from emergency services were in attendance and clarified figures anticipated for fee-for-service funds for the first year of implementation that had been submitted to the BADA by the property owner.

Planning Commission

The Berryville Planning Commission held their regular meeting on Tuesday, March 24, 2015. At that time they discussed the need for additional age- and income-restricted multifamily housing. No formal action was taken by the Planning Commission at the meeting. They will be holding a meeting on Tuesday, April 28, 2015 when staff can request they discuss the matter again and vote on a recommendation to Town Council.

Affordability

Mr. Heikes indicated there is a significant portion of the population in Berryville and Clarke County who cannot afford a facility similar to Mary Hardesty or the proposed Marlyn facility. Ms. Reid added that there is also a niche for those whose income is greater than what is permitted in a Mary Hardesty-type facility and for market priced facilities in Winchester and Loudoun County.

Variety of Housing Types

There was a consensus among Commissioners that a diversity of housing types (e.g., single family detached, duplex, triplex, town homes) was important to accommodate residents who would like to remain in the community. There was also a discussion on the need for smaller single-family homes, approximately 1,000 square feet, to be considered.

Zoning Modifications

In order for Marlyn to proceed with their project, an amendment to the Berryville Zoning Ordinance Section 614.5, concerning maximum densities in the Older Person Residential zoning district, would need to occur. As previously mentioned, the Berryville Area Plan identifies the specific numbers (300 total units with 120 identified as multi-family) that is reflected in the zoning ordinance.

Staff Comments

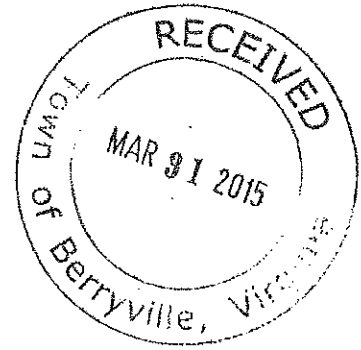
Mr. Echols submitted an application requesting a text amendment to the Berryville Zoning Ordinance (Section 614.5 Maximum Density in the Older Person Residential district) and amendment to the Berryville Area Plan in order to add 60 additional multifamily units (totaling 180 units) on Tuesday, March 31, 2015. It is staff's position that any ordinance change should be consistent with the Berryville Area Plan and/or Berryville Comprehensive Plan and that modifying the Zoning Ordinance in an inconsistent manner would establish a negative precedent.

A motion to initiate an amendment to the Berryville Zoning Ordinance per Mr. Echols' request follows this report.

Recommendation

Discuss at the meeting.

March 31st, 2015



Mayor Wilson Kirby

Members: Berryville Town Council

Mr. Keith Dalton, TOWN MANAGER

Members: Berryville Planning Commission

Members: BADA

Ms. Christy Dunkle, Zoning Administrator

101 Chalmers Ct.

Berryville, Va. 22611

Re: An Amendment to the Berryville Zoning Ordinance and the Comprehensive Plan for Annexation Area B.

Dear Mayor Kirby, Town Council Members and others:

Whenever the public necessity, convenience, general welfare, or good zoning require, the Town Council may by ordinance amend, supplement or change the regulations of the Zoning Ordinance"...by a text amendment (Section 507.1 – Berryville Zoning Ordinance). An owner of property in the Town or citizen of the Town may request the Town Council or the Planning Commission, in writing to initiate a text amendment: (Section 507.4 – Berryville Zoning Code).

Enclosed, you will find my request as an owner of property in the Town for the following:

- A Plan Amendment to Section 614.5 of the Berryville Zoning Ordinance that increases the Multi-family units in Area B from 120 to 180 Units, and
- A Comprehensive Plan Amendment for Annexation Area B that increases the permitted Multi-family units in the Comprehensive Plan from 120 units to 180 units, thereby conforming with the requested change to Section 614.5 of the Berryville Zoning Ordinance.

Since the General Assembly directs local governing bodies to determine which of the four purposes set forth in Section 507 – of the Town of Berryville Zoning Ordinances necessitates their action, we feel that the Zoning Ordinance, Virginia Code, Market Studies, and other information presented support all four purposes that will require an action to amend the Zoning Ordinance (507.1 – 507.7 of the 2008 Berryville Zoning Ordinance and Section 15.2 – 2286 A 7 of the Code of Virginia). The plain language of the Virginia Code reads as follows: "For the amendment of the regulations or district maps from time to time or for their repeal... Whenever the public necessity, convenience, general welfare, or good zoning practice requires, the governing body may by ordinance amend, supplement or change the regulations...any such amendment may be initiated... (iii) by petition of the owner, contract purchaser with owners written consent...addressed to the governing body... who shall forward such petition to... the local Planning Commission...by a written resolution.

Any such resolution or motion by such governing body...shall state the above public purposes therefor."
(Section 15.2 -2286 - Virginia Code)

The Virginia Code also states that "After the adoption of a comprehensive plan, all amendments to it shall be recommended, and approved and adopted respectively, as required by Virginia Code 15.2-2204. If the governing body desires an amendment it may direct the local planning commission (BADA) to prepare an amendment and submit it to public hearing within sixty days after formal written request by the governing body." (Section 15.2-2229 – Code of Virginia).

I respectfully request to be placed on the Agenda for the April 14th, 2015 Town Council meeting for the purpose of initiating a Text Amendment to the Regulations of the Berryville Zoning Ordinance.

Respectfully,

Alton C. Echols Jr., Trustee

Alton C Echols, Jr., Trustee
400 Custer Ct
Berryville, Virginia 22611

LAND DEVELOPMENT APPLICATION TOWN OF BERRYVILLE

(Please print or type)

Current Property #14-5- 251 B

Owner A. C. Echols, Jr., Trustee

Owner's Address 400 Custer Ct. Berryville, Va. 22611

Phone 540-955-2618

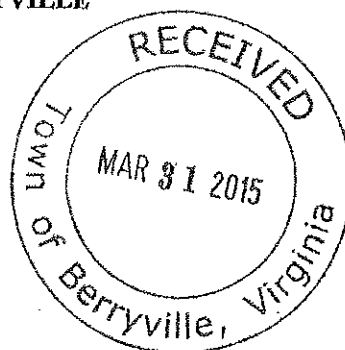
Agent (Contact Marlyn Development Corporation

Person) Francis Nance, Vice President - Development

Agent's

Address 308 35th Street Suite 101 Virginia Beach, Va. 23451

Phone 757-718-9008



Check Appropriate Request:

☐ Subdivision - creating more than 2 lots

☐ Minor Subdivision - single lot divided into 2 lots

☐ Boundary Line Adjustment

☐ Site Plan

☐ Rezoning

☒ Text Amendment; ☒ Zoning or ☐ Subdivision Ordinance

☐ ARB Certificate of Appropriateness

☐ Town of Berryville Utilities

☒ Other: Comprehensive Plan Amendment

Complete As Applicable:

Nature of Request/Proposal: "Zoning Text Amendment: - Section 614.5 of the Berryville Zoning Ordinance- Request to increase the allowable Multi-family units in the Older Persons Residential (OPR) District from 120 to 180 multi-family units. (Increasing Multi-family to 180 will decrease single family detached and/or attached from 180 to 120 units).

Tax Map & Parcel
14-5 - 251 B
Number(s):

Size of Project Site:

10.976 Acres

"Comprehensive Plan Amendment" for Annexation Area B - Chapter 5, Page 14, third paragraph: Increasing Multi-family from 120 to 180 units and reducing Single Family from 180 to 120 units in Annexation Area B.

Proposed # of Lots:

120 Multi-family Units

Existing Zoning

Older Persons Residential

Owner or Agent: The information provided is accurate to the best of my knowledge. I understand that the Town may deny, approve, or conditionally approve the request for which I am applying. I certify that all property corners have been clearly staked and flagged.

Signature: Curtis C. Echols, Jr., Trustee Date: March 31, 2015

Owner: I have read this completed application, understand its intent, and freely consent to its filing. Furthermore, I grant permission to the Town Planning Department and other government agents to enter the property and make such investigations and tests, as they deem necessary. I acknowledge that in accordance with Article X of the Subdivision Ordinance I am responsible for costs incurred for review of subdivision and/or development plans by the Town's engineer and that any other required tests or studies will be carried out at owner/agent expense

Signature:

Alton C. Echols, Jr.

Date:

march 31, 2015

OFFICE USE ONLY

Public Hearing Required?

Dates Advertised

Adjoining Property Owners Notified?

Action

Taken:

P:\FORMS\LANDDEV\DOC 3/05

Friday, January 16, 2015 9:27:55 AM Eastern Standard Time



Subject: Berryville

Date: Thursday, December 4, 2014 6:12:25 PM Eastern Standard Time

From: Erickson, Jon

To: Alton Echols, Francis Nance (fnance@marlyndv.com)

Gentlemen:

I had a good long meeting with Keith Dalton (Town Manager), Christy Dunkle (Assistant Town Manager/Planning Director) and Brandon Stidham (Planning Director Clarke County). We talked about the process and the applications required to get the 120 units approved. Below is a summary of my understanding of what is needed and a best case scenario schedule. I have additional notes from the meeting on what we need to provide to staff to answer some of the questions they have and to answer questions the BADA members asked at the November meeting. I will try and get those together tomorrow afternoon and out. I have also forwarded this to the Keith, Christy and Brandon for comments.

Berryville Area Plan Amendment to increase the permitted number of multifamily apartments in the OPR district from 60 to 120

Neither the Town or County has a formal application for a Comprehensive Plan Amendment (CPA). The only way to modify the Comp Plan is to make a request to one of the governing bodies to sponsor an amendment. If the governing body agrees, then the request would start with the BADA. The BADA would study the amendment, conduct a public hearing and then make a recommendation to both the Town Council and the Board of Supervisors. Both the Town Council and the Board of Supervisors would have to conduct a public hearing and approve the amendment. If either body denies the application it would fail.

We have already started this process with the BADA at the November meeting. At that meeting the BADA asked Staff (Town and County) to study the proposal and provide more information at the January meeting. Below is a best case scenario schedule for an amendment if it were to be taken up by the BADA and moved beyond that body. This application will almost certainly not make it through in the minimum required meetings and would most likely not get an approval until May/June, possibly beyond. If any governing body defers the application till the next meeting for any reason it will move the approval back one month and this could happen at any of the governing bodies.

January 28th BADA - Review information requested at November meeting and set a public hearing

February 25th BADA - Public hearing and recommend application to BOS and TC

March 10th TC - Review recommendation and set public hearing

March 17th BOS - Review recommendation and set public hearing

April 14th TC - Public hearing and vote on application

April 20th BOS - Public hearing and vote on application

One note on the schedule. While the Planning Commission is not technically involved in the review Town and County staff indicated that they would like the application passed through them for review and to keep them in the loop with the application. The PC meets on the fourth Tuesday of each month so possible dates for that meeting are February 24th or March 24th.

Text Amendment to the Zoning Ordinance - Special Use Permit - Preliminary Site Plan

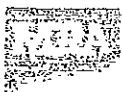
In addition to the CPA a Text Amendment to the Zoning Ordinance, Special Use Permit (SUP) and Preliminary Site Plan (PSP) are required. These applications can all be submitted concurrently but they do not all go through the same governing bodies. The Text Amendment is submitted to the Planning Commission who will hold a public hearing and make a recommendation to the TC. The TC will then hold a public hearing and vote on the amendment. The SPU and PSP go the BADA who will hold a public hearing and make a recommendation to the TC. The TC will then hold a public hearing and vote on the applications.

Because the Text Amendment is tied to the SPU and PSP and vice versa the cleanest way to track these applications would be to start them all at the BADA. The BADA would not be required to make a formal recommendation on the text amendment but would on the SPU and PSP. The applications would then move on to the PC who would not be required to make a formal recommendation on the SUP and PSP but would for the Text Amendment. Finally all of the applications would go to the TC where all three would be voted on.

These applications could be submitted at any time but without the Comp Plan Amendment in place they would not be in conformance with the comp plan and would most likely be denied. While it is understood that time is of the essence it would be best if these applications were started after the January BADA meeting and it was known if they were going to set a public hearing for the amendment. Below is a tentative schedule for all three applications.

February 25th BADA - Review information and set a public hearing
March 25th BADA - Public hearing and recommend application to PC
April 28th PC - Review information and set a public hearing
May 26th PC - Public hearing and recommend application to TC
June 16th TC - review information and set a public hearing
July 21st TC - Public hearing and vote on applications

Jon K. Erickson, P.E., L.S.
Associate



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Sterling, VA 20166

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Excerpts from Oct 14, 2008 Town Council Minutes

Ms. Dunkle presented three action items as follows:

A.C. Echols, Jr., Trustee, Battlefield Center Trust (Agent) is requesting a text amendment to Section 611 Business B Zoning District of the Town of Berryville Zoning Ordinance, establishing Section 611.2(bb) Senior Housing (Multifamily, Townhouses, Quadplexes, Duplexes, and Single-Family detached) as a permitted use and by adding Sections 614.4 through 614.11, from Section 614 Older Person Residential, to Section 611, B Business Zoning District regulations to establish Sections 611.9(f) through 611.9(m).

A.C. Echols, Jr., Trustee, Battlefield Center Trust (Agent) is requesting a text amendment to Section 611 Business B Zoning District of the Town of Berryville Zoning Ordinance, amending Section 611.4 establishing the maximum floor area ratio for Housing for Older Persons, Medium Density Multi-Family not to exceed .60 of net developable area.

A.C. Echols, Jr., Trustee, Battlefield Center Trust, is requesting an amendment to the Berryville Area Plan in order to permit Senior Housing in the Business B Zoning District in sub-area 6 as a transitional use.

Ms. Dunkle explained that the applicant has submitted three amendment requests (two text amendments and one plan amendment) allowing multi-family medium density senior housing in the B Business Zoning District. She explained that in order for any text amendment to be considered by the Town Council, the request must be sponsored by the Planning Commission or the Town Council. The applicant has requested that his applications be presented to Town Council for sponsorship.

Mayor Kirby said that this same application has been denied by the council before and called for any further discussion on the application.

Council member Kitselman said that there is a path that is laid out in the town's regulations by which this application can move along in the process. He noted that the council must use due diligence to understand the impact any proposal will have on fire, rescue and other services. He said that nobody is against senior housing but that he will not support subverting the process that was established back when the Mary Hardesty House was approved and the impact on local services must be examined.

Council member Kitselman then suggested that applicant apply for a rezoning to OPR (Older Person Residential) zoning, but proffer that if the funding doesn't become available then the zoning will revert to the original "B" Business zoning.

Council member Arnold said that he is concerned with the impact of this project on rescue services. He said that ever since the last report to the council, rescue services have seen an increase in calls to existing senior housing. He noted that the increase in revenue that the applicant quoted for the proposed project would not even cover one new rescue position.

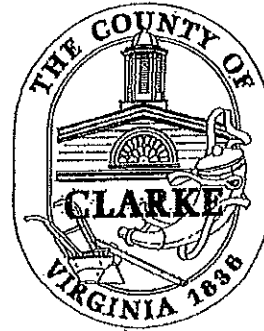
Council member Kitselman noted that it is required in the OPR regulations that an applicant address and mitigate rescue service issues as well as other impacts such as increased traffic.

A rezoning or an increase in density for a property is typically initiated by the land owner and may be achieved by a zoning text amendment to increase the permitted intensity of use. The increase in permitted multi-family units (from 60 to 120) is from an identified shortage of affordable senior housing in the Berryville area. One of the 10 purposes of a zoning ordinance is to promote affordable senior housing suitable for meeting both current and future needs of a locality as well as a reasonable part of planning district within which the locality is situated. Whenever the public necessity, convenience, general welfare, or good zoning practice, a governing body may by ordinance amend, and change the densities.

CLARKE COUNTY

2009 April 16

Alton Echols, Agent
Virginia United Methodist Housing Authority
400 Custer Court
Berryville, VA 22611



By certified mail

On 2008 November 18, Jon Erickson submitted on your behalf an application to amend the Berryville Area Plan regarding senior housing. This application included the application form, copies of a rezoning exhibit, and an application fee check (Non-Profit Housing Corporation check #1440) in the amount of \$5,000.

A search of the minutes of the Clarke County Board of Supervisors shows that on December 4 of 1995 the Board unanimously approved a motion "to amend that portion of the Berryville Area Plan pertaining to Sub-area 6 and 7, located north and west of the Food Lion grocery stores, so as to allow 'Housing for Older Persons' in the areas designated for the Business/Office and Highway and Visitor Commercial Uses." A search of the files show the text of this amendment submitted to the Town of Berryville on November 8 of 1995 by your attorney. In addition, on the same date the Board approved an amendment to the Business and Business/Commercial Zoning Districts to allow Housing of Older Persons as a permitted use.

The minutes further show that on May 3 of 1997 the Board of Supervisors and Town Council established the three-acre Sub-area 6A taking land from Sub-areas 6 and 7. Sub-area 6A encompasses Mary Hardesty House and Heritage Day Care. This amendment to the Berryville Area Plan did not include deletion of the paragraph added to Sub-areas 6 and 7 in 1995.

Finally, the minutes show that on May 15 of 2001, the Board of Supervisors deleted 'Housing for Older Persons' from the Business and Business/Commercial Zoning Districts. Again no change was made to the text of Sub-areas 6 and 7 deleting the paragraph added to Sub-area 6 and 7 made in 1995.

A search of the Board minutes has not found any such deletion at any other time.

After reviewing these facts with Robert Mitchell, we have concluded that the proposed rezoning of the Virginia United Methodist Housing Authority does not require any change to the Berryville Area Plan. Therefore, the \$5,000 application fee check is being returned to you.

Please contact me if you have any questions.

Charles Johnston, AICP
Planning Director

Copy: Jon Erickson; Urban, Ltd.

designations, land use opportunities and planning umbrellas common to communities like Berryville.

Residential Districts

At present, the Berryville Area accommodates a wide range of residential housing types, and densities and product values. Recognizing that historical future demands will likely continue for a similar range of diverse housing opportunities, the Area Plan's housing goals and objectives seek to encourage sensitively phased and appropriately scaled neighborhood locations for mixed housing types.

Three separate residential land use designations have been selected for the land use plan: **Low Density Residential, Medium-Low Density Residential, and Medium Density Residential for Older Persons.** Each dominant housing type (or product) is residential land use designation was selected and defined based on its appropriateness for the future housing needs and desires of the Berryville Area. Based on research of many other Virginia communities of similar size and scale to the Berryville Area, residential densities (or land use yields) have been carefully studied and tested for each of the recommended residential land use orientations. Densities for each of these land use designations were originally created to match the size and scale of development that is desired in the Town of Berryville. These densities are generally expressed in terms of in this Plan as dwelling units per net developable acre.

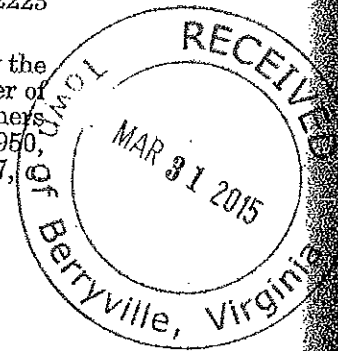
It is especially appropriate to provide for housing for older persons. With the aging of the Baby-boom generation, greater numbers of people will be seeking housing compatible with a retirement lifestyle and that meets the needs of seniors. Providing for such uses not only meets a need for the most rapidly growing segment of the population but also provides for households with the greatest amount of discretionary income. This high level of spendable income provides a greater opportunity for business and service activity. Older Person housing carries the additional benefit of not resulting in an increase in public school services, the single most costly local government service.

Comment [CC6]: Discuss with BADA to include income restrictions, emergency service needs, medical facilities, and impact of an aging community.

The residential densities recommended herein are presented in a range to provide maximum flexibility for the Board of Supervisors and Town Council regarding decisions in determining to determine the most appropriate density for any given development proposal. The higher density zoning districts are to be applied where land use proposals will be optimally accommodated by existing public infrastructure, or where developers may propose site design features to mitigate any possible level of service degradation to infrastructure (e.g., roads, stormwater management, or public water/sewer) that may be caused by the development at build-out. are of a superior quality relative to site design (within the context of integrating recreational and environmental amenities as well as off-site improvements) and address specific issues and needs raised in the Berryville Area Plan. Thus, if the top end of the density range is to be achieved for any given site, it should be incumbent upon the applicant developers to present zoning proposals, master planning, phasing concepts and public facilities programs which fully complement the adopted Area Plan and mitigate impacts on Town and County infrastructure.

The following table summarizes the three residential land use designations:

a special nonreverting commission fund to be available for expenditure by the commission for the purpose designated by the donor. The disbursing officer of the locality may issue warrants against such special fund only upon vouchers signed by the chairman and the secretary of the commission. (Code 1950, §§ 15-905, 15-917; Code 1950, § 15-963.8; 1962, c. 407, § 15.1-445; 1997, 587.)



ARTICLE 3.

The Comprehensive Plan.

§ 15.2-2223. Comprehensive plan to be prepared and adopted; scope and purpose. — The local planning commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction and every governing body shall adopt a comprehensive plan for the territory under its jurisdiction.

In the preparation of a comprehensive plan the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants.

The comprehensive plan shall be general in nature, in that it shall designate the general or approximate location, character, and extent of each feature shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be.

The plan, with the accompanying maps, plats, charts, and descriptive matter, shall show the locality's long-range recommendations for the general development of the territory covered by the plan. It may include, but need not be limited to:

1. The designation of areas for various types of public and private development and use, such as different kinds of residential, business, industrial, agricultural, mineral resources, conservation, recreation, public service, flood plain and drainage, and other areas;
2. The designation of a system of transportation facilities such as streets, roads, highways, parkways, railways, bridges, viaducts, waterways, airports, ports, terminals, and other like facilities;
3. The designation of a system of community service facilities such as parks, forests, schools, playgrounds, public buildings and institutions, hospitals, community centers, waterworks, sewage disposal or waste disposal areas, and the like;
4. The designation of historical areas and areas for urban renewal or other treatment;
5. The designation of areas for the implementation of reasonable ground water protection measures;
6. An official map, a capital improvements program, a subdivision ordinance, a zoning ordinance and zoning district maps, mineral resource district maps and agricultural and forestal district maps, where applicable; and
7. The location of existing or proposed recycling centers.

The plan shall include: the designation of areas and implementation of measures for the construction, rehabilitation and maintenance of affordable housing, which is sufficient to meet the current and future needs of residents of all levels of income in the locality while considering the current and future

needs of the planning district within which the locality is situated, (1975, c. 641, § 15.1-446.1; 1976, c. 650; 1977, c. 228; 1988, c. 268; 1989, c. 532; 1990, c. 19; 1993, cc. 116, 758; 1996, cc. 585, 600; 1997, c. 587; 2003, c. 811.)

The 2003 amendments. — The 2003 amendment by c. 811 added "and" at the end of subdivision 6; deleted "and" at the end of subdivision 7; added the introductory phrase following subdivision 7; deleted the subdivision 8 designation at the beginning of the last paragraph, and substituted "areas and implementation of measures for the construction, rehabilitation and maintenance of affordable housing, which is sufficient" for "areas for the implementation of measures to promote the construction

and maintenance of affordable housing, sufficient" therein.

Law Review. — For survey of Virginia law on land use planning for the year 1974-1975, see 61 Va. L. Rev. 1769 (1975). For survey of Virginia law on municipal corporations for the year 1975-1976, see 62 Va. L. Rev. 1455 (1975). For comment on challenging rezoning in Virginia, see 15 U. Rich. L. Rev. 423 (1981). For article on conditional zoning in Virginia, see 15 U. Rich. L. Rev. 117 (1982).

CASE NOTES

"Spot zoning" defined. — See Wilhelm v. Morgan, 208 Va. 398, 157 S.E.2d 920 (1967) (decided under prior law).

§ 15.2-2224. Surveys and studies to be made in preparation of plan; implementation of plan. — A. In the preparation of a comprehensive plan, the local planning commission shall survey and study such matters as the following:

1. Use of land, preservation of agricultural and forestal land, production of food and fiber, characteristics and conditions of existing development, trends of growth or changes, natural resources, historic areas, ground water, surface water, geologic factors, population factors, employment, environmental and economic factors, existing public facilities, drainage, flood control and flood damage prevention measures, transportation facilities, the need for affordable housing in both the locality and planning district within which it is situated, and any other matters relating to the subject matter and general purposes of the comprehensive plan.

However, if a locality chooses not to survey and study historic areas, then the locality shall include historic areas in the comprehensive plan, if such areas are identified and surveyed by the Department of Historic Resources. Furthermore, if a locality chooses not to survey and study mineral resources, then the locality shall include mineral resources in the comprehensive plan, if such areas are identified and surveyed by the Department of Mines, Minerals and Energy. The requirement to study the production of food and fiber shall apply only to those plans adopted on or after January 1, 1981.

2. Probable future economic and population growth of the territory and requirements therefor.

B. The comprehensive plan shall recommend methods of implementation and shall include a current map of the area covered by the comprehensive plan. Unless otherwise required by this chapter, the methods of implementation may include but need not be limited to:

1. An official map;
2. A capital improvements program;
3. A subdivision ordinance;
4. A zoning ordinance and zoning district maps; and
5. A mineral resource map. (Code 1950, § 15-964.1; 1962, c. 407, § 15.1-447; 1975, c. 641; 1977, c. 228; 1980, c. 322; 1981, c. 418; 1988, c. 438; 1990, c. 97; 1991, c. 280; 1993, cc. 758, 770; 1996, cc. 585, 600; 1997, c. 587.)

CIRCUIT COURT OPINIONS

Duty of commission. — Planning commission was not required to survey and study all of the matters set forth in the statute. While the statute provides that the commission shall study "such matters as" those listed in the

statute, the list was not exhaustive or inclusive to the inquiry. *Huber v. Loudoun County Bd. of Supervisors*, 55 Va. Cir. 318, 2001 Va. Cir. LEXIS 289 (Loudoun County 2001).

§ 15.2-2225. Notice and hearing on plan; recommendation by local planning commission to governing body. — Prior to the recommendation of a comprehensive plan or any part thereof, the local planning commission shall give notice in accordance with § 15.2-2204 and hold a public hearing on the plan. After the public hearing, the commission may approve, amend and approve, or disapprove the plan. Upon approval, the commission shall by resolution recommend the plan, or part thereof, to the governing body and a copy shall be certified to the governing body. (Code 1950, §§ 15-908, 15-921, 15-922, 15-964.2, 15-964.3; 1958, c. 389; 1962, c. 407, § 15.1-448, 15.1-449; 1968, c. 735; 1975, c. 641; 1976, c. 642; 1997, c. 587.)

§ 15.2-2226. Adoption or disapproval of plan by governing body. — After certification of the plan or part thereof, the governing body, after a public hearing with notice as required by § 15.2-2204, shall proceed to a consideration of the plan or part thereof and shall approve and adopt, amend and adopt, or disapprove the plan. In acting on the plan or part thereof, or any amendments to the plan, the governing body shall act within ninety days of the local planning commission's recommending resolution. (Code 1950, § 15-964.4; 1962, c. 407, § 15.1-450; 1975, c. 641; 1976, c. 642; 1997, c. 587; 2000, c. 893.)

§ 15.2-2227. Return of plan to local planning commission; resubmission. — If the governing body disapproves the plan, then it shall be returned to the local planning commission for its reconsideration, with a written statement of the reasons for its disapproval. The commission shall have sixty days in which to reconsider the plan and resubmit it, with any changes, to the governing body. (Code 1950, § 15-964.5; 1962, c. 407, § 15.1-451; 1997, c. 587.)

§ 15.2-2228. Adoption of parts of plan. — As the work of preparing the comprehensive plan progresses, the local planning commission may, from time to time, recommend, and the governing body approve and adopt, parts thereof. Any such part shall cover one or more major sections or divisions of the locality or one or more functional matters. (Code 1950, §§ 15-906, 15-921; Code 1950, § 15-964.6; 1958, c. 389; 1962, c. 407, § 15.1-452; 1997, c. 587.)

§ 15.2-2229. Amendments. — After the adoption of a comprehensive plan, all amendments to it shall be recommended, and approved and adopted, respectively, as required by § 15.2-2204. If the governing body desires an amendment it may direct the local planning commission to prepare an amendment and submit it to public hearing within sixty days after formal written request by the governing body. In acting on any amendments to the plan, the governing body shall act within ninety days of the local planning commission's recommending resolution. (Code 1950, §§ 15-908, 15-921; Code 1950, § 15-964.7; 1958, c. 389; 1962, c. 407, § 15.1-453; 1975, c. 641; 1997, c. 587; 2000, c. 893.)

§ 15.2-2230. Plan to be reviewed at least once every five years. — At least once every five years the comprehensive plan shall be reviewed by the

local planning commission to determine whether it is advisable to amend the plan. (Code 1950, § 15-964.8; 1962, c. 407, § 15.1-454; 1975, c. 641; 1997, c. 587.)

§ 15.2-2230.1. Public facilities study. — In addition to reviewing the comprehensive plan, the planning commission may make a study of the public facilities, including existing facilities, which would be needed if the comprehensive plan is fully implemented. The study may include estimations of the annual prospective operating costs for such facilities and any revenues, including tax revenues, that may be generated by such facilities. For purposes of the study, public facilities may include but need not be limited to water and sewer lines and treatment plants, schools, public safety facilities, streets and highways. The planning commission may forward the study to the local governing body or any other local, regional, state or federal agency that the planning commission believes might benefit from its findings. (1998, c. 609.)

§ 15.2-2231. Inclusion of incorporated towns in county plan; inclusion of adjacent unincorporated territory in municipal plan. — Any county plan may include planning of incorporated towns to the extent to which, in the county local planning commission's judgment, it is related to planning of the unincorporated territory of the county as a whole. However, the plan shall not be considered as a comprehensive plan for any incorporated town unless recommended by the town commission, if any, and adopted by the governing body of the town.

Any municipal plan may include the planning of adjacent unincorporated territory to the extent to which, in the municipal local planning commission's judgment, it is related to the planning of the incorporated territory of the municipality. However, the plan shall not be considered as a comprehensive plan for such unincorporated territory unless recommended by the county commission and approved and adopted by the governing body of the county. (Code 1950, § 15-922; Code 1950, § 15-964.9; 1962, c. 407, § 15.1-455; 1997, c. 587.)

CASE NOTES

Duty to exhaust administrative remedies. — A person aggrieved by any decision of the zoning administrator has the right to appeal to the board of zoning appeals under this section and if this mandatory appeal is not

timely filed, the administrative remedy has not been exhausted and the zoning administrator's decision becomes final, and not subject to court challenge. *Lilly v. Caroline County*, 259 Va. 291, 526 S.E.2d 748 (2000).

§ 15.2-2232. Legal status of plan. — A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation, facility other than railroad facility, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing, after notice as required by § 15.2-2204.

conjunction with sub-areas 6 & 7. The Medium Density Residential for Older Persons use policy is established to provide a location for the fastest growing demographic segment of the housing market adjacent to an area that contains commercial and office uses that could directly serves senior residents. Development in this area should include both income restricted and market rate housing for older persons. Such activities shall be developed in a medium intensity manner, such that they serve as transitional uses between residential uses to the south and west and higher intensity commercial uses to the east. The proximity of sub-area 6A to the existing Food Lion grocery store and other future commercial uses makes it uniquely suited to housing for senior citizens.

Older Person Residential (OPR) is the zoning applied to this sub-area. Mary Hardesty House and Greenfield Assisted Living facility are currently located in this sub-area, with the Robert Regan House referenced above is slated for development in late 2013. The total number of multi-family units permitted in Annexation Area B is 120. The Robert Regan House would exhaust this total.

Transportation is a critical component of this sub-area. Its development pattern has dictated a road network which accesses Greenfield and future development to the north of Mosby Boulevard. Vehicular and pedestrian connectivity of this area shall be considered with future development. The public street system in this sub-area (Chamberlain and McClellan) must be completed and brought into the Town's road system prior to additional development. Emergency access and appropriate lighting is important to the health, safety and welfare of those who live and work in this sub-area as well as to emergency responders.

Other relevant planning issues for sub-area 6A, include provision of quality landscaping, screening and buffering to alleviate potential concerns from residential uses to the south and west. The design and scale of the proposed uses should have a residential character that extends the small town design features and respects the architectural themes in the Berryville Area. A consistent design program should be established for all proposed buildings within the development. Site design requirements should include the siting and massing of buildings to enhance the views of the site from Mosby Boulevard and adjacent residential areas. Site planning should also include extensive landscaping to screen the views of the buildings from these same vantages.

180
The proposed Older Persons Residential Zoning district for this sub-area allows a variety of unit types ranging from small lot single family detached to multi-family. The density for this sub-area should be established by the site plan and/or subdivision of the property within the 300 unit limit (with not more than 120 multi-family units) set for Older Person Residential uses.

Site Plan and other future land use decisions in sub-area 6A should only approve development proposals that present a workable transportation solution, with public streets, which is in compliance with provisions for safe and adequate ingress/egress measures into the sub-area, as well as, adequate public street linkages within the overall planning precinct. The private sector should design and construct public roads in the planning precinct necessary to carry the ultimate traffic loadings for the projected older person development. In addition, transportation plans should provide for bikeways as well as internal pedestrian movements via sidewalks and paths.

The Medium Density Residential for Older Persons land use designation is applied to sub-area 6A to establish the framework for a specialized residential land use that should be planned in conjunction with sub-areas 6 & 7. The Medium Density Residential for Older Persons use policy is established to provide a location for the fastest growing demographic segment of the housing market adjacent to an area that contains commercial and office uses that could directly serves senior residents. Such activities shall be developed in a medium intensity manner, such that they serve as transitional uses between residential uses to the south and west and higher intensity commercial uses to the east. The proximity of sub-area 6A to the existing Food Lion grocery store and other future commercial uses makes it uniquely suited to housing for senior citizens.

Other relevant planning issues for sub-area 6A, include provision of quality landscaping, screening and buffering to alleviate potential concerns from residential uses to the south and west. The design and scale of the proposed uses should have a residential character that extends the small town design features and respects the architectural themes in the Berryville Area. A consistent design program should be established for all proposed buildings within the development. Site design requirements should include the siting and massing of buildings to enhance the views of the site from Mosby Boulevard and adjacent residential areas. Site planning should also include extensive landscaping to screen the views of the buildings from these same vantages.

change to 180
The proposed Older Persons Residential Zoning district for this sub-area allows a variety of unit types ranging from small lot single family detached to multi-family. The density for this sub-area should be established by the site plan and/or subdivision of the property within the 300 unit limit (with not more than 120 multi-family units) set for Older Person Residential uses.

Site Plan and other future land use decisions in sub-area 6A should only approve development proposals that present a workable transportation solution, with public streets, which is in compliance with provisions for safe and adequate ingress/egress measures into the sub-area, as well as, adequate public street linkages within the overall planning precinct. The private sector should design and construct public roads in the planning precinct necessary to carry the ultimate traffic loadings for the projected older person development. In addition, transportation plans should provide for bikeways as well as internal pedestrian movements via sidewalks and paths.

Phasing of the site development in sub-area 6A shall be coordinated with the development of the balance of the planning precinct. Incremental and compact growth is encouraged with higher intensity development on selected tracts where superior site design and public improvements are incorporated into site development schemes. Therefore, site plans should only be approved upon the submittal of superior development proposals which address phasing, transportation issues, stormwater management, quality site design, and other applicable site design issues previously addressed above.

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COUNTIES, CITIES AND TOWNS

§ 15.2-2238

locality. The governing body may then approve and adopt the map by a majority vote of its membership and publish it as the official map of the locality. No official map shall be adopted by the governing body or have any effect until approved by ordinance duly passed by the governing body of the locality after a public hearing, preceded by public notice as required by § 15.2-2204. Within thirty days after adoption of the official map the governing body shall cause it to be filed in the office of the clerk of the circuit court. (Code 1950, § 15-965.1; 1962, c. 407, § 15.1-459; 1997, c. 587.)

§ 15.2-2235. Additions and modifications. — The governing body may by ordinance make, from time to time, other additions to or modifications of the official map by placing thereon the location of any proposed street, street widening, street vacation, waterway or public area in accordance with the procedures applicable to the locality.

Prior to making any such additions or modifications to the official map, the governing body shall refer the additions or modifications to the local planning commission for its consideration. The commission shall take action on the proposed additions or modifications within sixty days and report its recommendations to the governing body.

Upon receipt of the report of the commission, the governing body shall hold a public hearing on the proposed addition or modification to the official map and shall give notice of the hearing in accordance with § 15.2-2204. All such reports of the commission, when delivered to the governing body, shall be available for public inspection.

Any ordinance embodying additions to or modifications of the official map shall be adopted by at least the vote required for original adoption of the official map. After the public hearing and the final passage of such ordinance, the additions or modifications shall become a part of the official map of the locality. All changes, additions or modifications of the official map shall be filed with the clerk of the court as provided in § 15.2-2234. (Code 1950, § 15-965.2; 1962, c. 407, § 15.1-460; 1988, c. 436; 1997, c. 587.)

§ 15.2-2236. Periodic review and readoption. — The official map and any additions thereto or modifications thereof shall be reviewed within five years from the date of adoption or readoption of the map by the governing body. The procedure by the local planning commission and the governing body in connection with the review shall conform to that prescribed as to original adoption of the map. Neither the official map nor any additions thereto or modifications thereof shall be of any force or effect for more than five years after adoption or readoption of the map unless readopted by the governing body. (Code 1950, § 15-965; 1962, c. 407, § 15.1-461; 1997, c. 587.)

§ 15.2-2237. Consultation with Commonwealth Transportation Board; copies of map and ordinance to be sent to Commonwealth Transportation Board. — During the preparation of an official map the local planning commission shall consult with the Commonwealth Transportation Board or its local representative as to any streets under the jurisdiction of the Board, and prior to recommendation of the map to the governing body it shall submit the map to the Board for comment. Any recommendations of the Board, not incorporated in the official map, shall be forwarded to the governing body when the map is recommended by the commission. When any locality has adopted an official map in accordance with the terms of this chapter a certified copy of the map and ordinance adopting it shall be sent to the Board. (Code 1950, § 15-965.4; 1962, c. 407, § 15.1-462; 1988, c. 436; 1997, c. 587.)

§ 15.2-2238. Authority of counties under § 33.1-229 et seq. not affected. — The provisions of this article shall not affect the exercise of the

Notice of hearing on proposed ordinance. — The fact that certain property owners did not see the published notice of the hearing on a proposed zoning ordinance cannot affect the validity of the ordinance when everything required by the statute was done before its adoption. *Blankenship v. City of Richmond*, 188 Va. 97, 49 S.E.2d 321 (1948) (decided under prior law).

Principles governing judicial review of zoning ordinances. — See *Board of Supvrs. v. Snell Constr. Corp.*, 214 Va. 655, 202 S.E.2d 889 (1974) (decided under prior law).

Exhaustion of administrative remedies. — A party complaining of the impact of a zoning ordinance on his property rights has no standing to make a judicial attack upon the validity of the ordinance until he has exhausted the administrative remedies available to him. *Board of Supvrs. v. Market Inns, Inc.*, 228 Va. 82, 319 S.E.2d 737 (1984) (decided under prior law).

Presumption of validity accorded by appellate court. — While a trial court's finding of unreasonableness in zoning action carries a presumption of correctness, an appellate court still accords the action its presumption of legislative validity in its review. *City of Manassas v. Rosson*, 224 Va. 12, 294 S.E.2d 799 (1982), appeal dismissed, 459 U.S. 1166, 103 S. Ct. 809, 74 L. Ed. 2d 1009 (1983) (decided under prior law).

In reviewing zoning ordinances, courts deal with economic and social legislation where legislatures have historically drawn lines which the courts respect against the charge of violation of the Equal Protection Clause, if the law is reasonable, not arbitrary, and bears a rational relationship to a permissible state objective. *City of Manassas v. Rosson*, 224 Va. 12, 294 S.E.2d 799 (1982), appeal dismissed, 459 U.S. 1166, 103 S. Ct. 809, 74 L. Ed. 2d 1009 (1983) (decided under prior law).

Consideration of evidence by trial court upon review of governing body's action. — Fixing the specific location of boundaries between zoning districts is a legislative function that is, by nature, more or less arbitrary. In making that zoning judgment, the governing body must consider, for example, the general boundary guidelines set forth in the comprehensive plan, location of property lines, physical characteristics of the land, and other factors affecting optimum geographical alignment. However, this does not mean that the trial court, upon reviewing legislative action, may arbitrarily disregard credible evidence that supports drawing the zoning boundary at a property line rather than within a natural boundary. *Board of Supvrs. v. Pyles*, 224 Va. 629, 300 S.E.2d 79 (1983) (decided under prior law).

Presumptions accorded upon review by Supreme Court. — Upon review of a trial court's determination that the refusal of a rezoning request was arbitrary and capricious, the Supreme Court will accord the court's finding, as in the usual case, a presumption of correctness. It also, however, will give full credit to the presumption of validity of the challenged legislative action and then, meshing the presumptions, will examine the record to determine whether the evidence sustains the court's finding. *Board of Supvrs. v. Pyles*, 224 Va. 629, 300 S.E.2d 79 (1983) (decided under prior law).

Application of county zoning ordinance to location of city jail in county. — Notwithstanding statutes authorizing the city of Richmond to establish a jail outside its limits, the city had no right to construct and operate a jail and jail farm on property it owned in Henrico County, in contravention of the duly enacted zoning ordinance of the county. *City of Richmond v. Board of Supvrs.*, 199 Va. 679, 101 S.E.2d 641 (1958) (decided under prior law).

Comprehensive development plan is not a zoning ordinance, but only a guideline for zoning ordinances. *Board of Supvrs. v. Safeco Ins. Co. of Am.*, 226 Va. 329, 310 S.E.2d 445 (1983) (decided under prior law).

An erroneous reference map cannot alter the terms of a properly adopted zoning ordinance. *City of Covington v. APB Whiting, Inc.*, 234 Va. 155, 360 S.E.2d 206 (1987) (decided under prior law).

Zoning to control location of establishments selling alcoholic beverages. — By enacting the Alcoholic Beverage Control Act, the General Assembly did not intend to prohibit local governments from utilizing zoning as a means of controlling the location and concentration of establishments selling alcoholic beverages. *City of Norfolk v. Tiny House, Inc.*, 222 Va. 414, 281 S.E.2d 836 (1981) (decided under prior law).

The Alcoholic Beverage Control Board's exclusive authority to license and regulate the sale and purchase of alcoholic beverages in Virginia does not preclude a municipality from utilizing valid zoning ordinances to regulate the location of an establishment selling such alcoholic beverages. *City of Norfolk v. Tiny House, Inc.*, 222 Va. 414, 281 S.E.2d 836 (1981) (decided under prior law).

Failure to apply for special exception. — Where, when property owner filed an application to rezone his property from A-2 to B-2, he told the commission and the county board of supervisors that he planned to operate an automobile graveyard, and the board rezoned his property, the board may have intended thereby to grant him a special exception; however, as an automobile graveyard was not then and is not now a permitted use in a B-2 zone, and the

Balancing of population, facilities and funds. — In a board's zoning actions it must protect against undue density of population in relation to the community facilities existing or available and must make provision for public facilities consonant with the efficient and economical use of public funds. Board of Supvrs. v. Williams, 216 Va. 49, 216 S.E.2d 33 (1975) (decided under prior law).

Denial of rezoning requests was reasonable legislative action. — A board's denial of rezoning requests was legislative action, action which is presumed to be reasonable. Board of Supvrs. v. Williams, 216 Va. 49, 216 S.E.2d 33 (1975) (decided under prior law).

If matter in issue is fairly debatable. — Legislative action in denying a rezoning request was reasonable if the matter in issue, viz., the proper zoning classification of the land in question, is fairly debatable. Board of Supvrs. v. Williams, 216 Va. 49, 216 S.E.2d 33 (1975) (decided under prior law).

Unless action clearly shown to be unrea-

sonable. — Although this presumption of reasonableness is not conclusive, it survives until the one who attacks the legislative action, and upon whom the burden of proof rests, shows clearly that the action is unreasonable. Board of Supvrs. v. Williams, 216 Va. 49, 216 S.E.2d 33 (1975) (decided under prior law).

When issue is debatable. — Given the human tendency to debate any question, an issue may be said to be fairly debatable when the evidence offered in support of the opposing views would lead objective and reasonable persons to reach different conclusions. Board of Supvrs. v. Williams, 216 Va. 49, 216 S.E.2d 33 (1975) (decided under prior law).

For cases in which city planning commission was dismissed as a party since its function was primarily advisory, and it had not been given the capacity to be sued by either state or local mandate, see Davis v. City of Portsmouth, 579 F. Supp. 1205 (E.D. Va. 1983), aff'd, 742 F.2d 1448 (4th Cir. 1984) (decided under prior law).

§ 15.2-2201. Definitions. — As used in this chapter, unless the context requires a different meaning:

"Affordable housing" means, as a guideline, housing that is affordable to households with incomes at or below the area median income, provided that the occupant pays no more than thirty percent of his gross income for gross housing costs, including utilities. For the purpose of administering affordable dwelling unit ordinances authorized by this chapter, local governments may establish individual definitions of affordable housing and affordable dwelling units including determination of the appropriate percent of area median income and percent of gross income.

"Conditional zoning" means, as part of classifying land within a locality into areas and districts by legislative action, the allowing of reasonable conditions governing the use of such property, such conditions being in addition to, or modification of the regulations provided for a particular zoning district or zone by the overall zoning ordinance.

"Development" means a tract of land developed or to be developed as a unit under single ownership or unified control which is to be used for any business or industrial purpose or is to contain three or more residential dwelling units. The term "development" shall not be construed to include any property which will be principally devoted to agricultural production.

"Historic area" means an area containing one or more buildings or places in which historic events occurred or having special public value because of notable architectural, archaeological or other features relating to the cultural or artistic heritage of the community, of such significance as to warrant conservation and preservation.

"Incentive zoning" means the use of bonuses in the form of increased project density or other benefits to a developer in return for the developer providing certain features or amenities desired by the locality within the development.

"Local planning commission" means a municipal planning commission or a county planning commission.

"Mixed use development" means property that incorporates two or more different uses, and may include a variety of housing types, within a single development.

CASE NOTES

The precise location of boundaries between zoning districts is a function of the zoning process. Board of Supvrs. v. Snell Constr. Corp., 214 Va. 655, 202 S.E.2d 889 (1974) (decided under prior law).

Function of zoning authority and court. — Former § 15.1-489 (see now § 15.2-2283) and this section set out the purpose of the zoning ordinances and a number of factors which a zoning authority must consider when taking zoning actions. The weighing of the relevant factors is a legislative function reserved to the zoning authority. On judicial review, a court is limited to a determination whether the decision which resulted from the legislative action was reasonable. Board of Supvrs. v. Miller & Smith, Inc., 242 Va. 382, 410 S.E.2d 648 (1991) (decided under prior law).

Legislative body has prerogative to choose between reasonable zoning classifications. — When two reasonable zoning classifications apply to a property, the legislative

body, the board of supervisors in this case, has the legislative prerogative to choose between those reasonable zoning classifications. This principle is not displaced by the provisions of this section or former § 15.1-489 (see now § 15.2-2283). Board of Supvrs. v. Miller & Smith, Inc., 242 Va. 382, 410 S.E.2d 648 (1991) (decided under prior law).

Considerations in making zoning judgment. — In making a zoning judgment the governing body must consider not only the general boundary guidelines of a comprehensive plan but also location of property lines, physical characteristics of the land, and other factors affecting optimum geographical alignment. Board of Supvrs. v. Snell Constr. Corp., 214 Va. 655, 202 S.E.2d 889 (1974) (decided under prior law).

As to validity of piecemeal downzoning ordinance, see Board of Supvrs. v. Snell Constr. Corp., 214 Va. 655, 202 S.E.2d 889 (1974) (decided under prior law).

OPINIONS OF THE ATTORNEY GENERAL

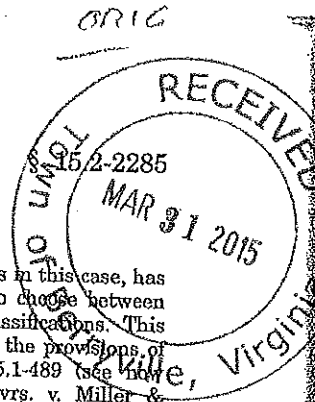
Virginia locality may adopt proffer policy that considers an adequate public facilities requirement. — A Virginia locality may adopt, as part of its comprehensive plan, a proffer policy that considers an adequate public

facilities requirement, with specified criteria, before applications for rezoning may be approved. See opinion of Attorney General to The Honorable Ronald S. Hallman, City Attorney for the City of Chesapeake, 00-060 (4/29/02).

§ 15.2-2285. Preparation and adoption of zoning ordinance and map and amendments thereto; appeal. — A. The planning commission of each locality may, and at the direction of the governing body shall, prepare a proposed zoning ordinance including a map or maps showing the division of the territory into districts and a text setting forth the regulations applying in each district. The commission shall hold at least one public hearing on a proposed ordinance or any amendment of an ordinance, after notice as required by § 15.2-2204, and may make appropriate changes in the proposed ordinance or amendment as a result of the hearing. Upon the completion of its work, the commission shall present the proposed ordinance or amendment including the district maps to the governing body together with its recommendations and appropriate explanatory materials.

B. No zoning ordinance shall be amended or reenacted unless the governing body has referred the proposed amendment or reenactment to the local planning commission for its recommendations. Failure of the commission to report 100 days after the first meeting of the commission after the proposed amendment or reenactment has been referred to the commission, or such shorter period as may be prescribed by the governing body, shall be deemed approval, unless the proposed amendment or reenactment has been withdrawn by the applicant prior to the expiration of the time period. In the event of and upon such withdrawal, processing of the proposed amendment or reenactment shall cease without further action as otherwise would be required by this subsection.

C. Before approving and adopting any zoning ordinance or amendment thereof, the governing body shall hold at least one public hearing thereon, pursuant to public notice as required by § 15.2-2204, after which the govern



Request
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2311, a zoning ordinance may prescribe an appeal period of less than thirty days, but not less than ten days, for a notice of violation involving temporary or seasonal commercial uses, parking of commercial trucks in residential zoning districts, or similar short-term, recurring violations.

Where provided by ordinance, the zoning administrator may be authorized to grant a variance from any building setback requirement contained in the zoning ordinance if the administrator finds in writing that: (i) the strict application of the ordinance would produce undue hardship; (ii) such hardship is not shared generally by other properties in the same zoning district and the same vicinity; and (iii) the authorization of the variance will not be of substantial detriment to adjacent property and the character of the zoning district will not be changed by the granting of the variance. Prior to the granting of a variance, the zoning administrator shall give, or require the applicant to give, all adjoining property owners written notice of the request for variance, and an opportunity to respond to the request within twenty-one days of the date of the notice. If any adjoining property owner objects to said request in writing within the time specified above, the request shall be transferred to the Board of Zoning Appeals for decision.

The zoning administrator shall respond within ninety days of a request for a decision or determination on zoning matters within the scope of his authority unless the requester has agreed to a longer period.

5. For the imposition of penalties upon conviction of any violation of the zoning ordinance. Any such violation shall be a misdemeanor punishable by a fine of not less than \$10 nor more than \$1,000. If the violation is uncorrected at the time of the conviction, the court shall order the violator to abate or remedy the violation in compliance with the zoning ordinance, within a time period established by the court. Failure to remove or abate a zoning violation within the specified time period shall constitute a separate misdemeanor offense punishable by a fine of not less than \$10 nor more than \$1,000, and any such failure during any succeeding ten-day period shall constitute a separate misdemeanor offense for each ten-day period punishable by a fine of not less than \$100 nor more than \$1,500.

6. For the collection of fees to cover the cost of making inspections, issuing permits, advertising of notices and other expenses incident to the administration of a zoning ordinance or to the filing or processing of any appeal or amendment thereto.

7. For the amendment of the regulations or district maps from time to time, or for their repeal. Whenever the public necessity, convenience, general welfare, or good zoning practice requires, the governing body may by ordinance amend, supplement, or change the regulations, district boundaries, or classifications of property. Any such amendment may be initiated (i) by resolution of the governing body, (ii) by motion of the local planning commission, or (iii) by petition of the owner, contract purchaser with the owner's written consent, or the owner's agent therefor, of the property which is the subject of the proposed zoning map amendment, addressed to the governing body or the local planning commission, who shall forward such petition to the governing body; however, the ordinance may provide for the consideration of proposed amendments only at specified intervals of time, and may further provide that substantially the same petition will not be reconsidered within a specific period, not exceeding one year. Any such resolution or motion by such governing body or commission proposing the rezoning shall state the above public purposes therefor.

In any county having adopted such zoning ordinance, all motions, resolutions or petitions for amendment to the zoning ordinance, and/or map shall be acted upon and a decision made within such reasonable time as may be necessary which shall not exceed twelve months unless the applicant requests or consents to action beyond such period or unless the applicant withdraws his

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Section 507 – Amendments

SECTION 507 - AMENDMENTS

- 507.1 Whenever the public necessity, convenience, general welfare, or good zoning practice require, the Town Council may by ordinance amend, supplement, or change the regulations of the Zoning Ordinance (text amendment) or the zoning district boundaries or classifications of property (rezoning/zoning map amendment). (11/02)
- 507.2 Such amendments may be initiated (i) by resolution of the Governing Body, or (ii) by motion of the Planning Commission. Any such resolution or motion shall state the above public purpose therefor. (11/02)
- 507.3 A rezoning/zoning map amendment may be initiated by petition of the owner, contract purchaser with the owner's written consent, or owner's agent therefor of the property which is the subject of the proposed rezoning/zoning map amendment. (11/02)
- 507.4 An owner of property in the Town, or citizen of the Town, may request the Town Council or the Planning commission, in writing, to initiate a text amendment. The determination of whether to initiate a text amendment shall be in the sole discretion of the Town Council or Planning Commission. The property owner or citizen shall submit with the written request any applicable fee, which shall be returned to such property owner or citizen less the expended fees if the Town Council or Planning Commission elects not to initiate the requested text amendment. (11/02)
- 507.5 Any proposed text amendment or rezoning/zoning map amendment shall be referred to the Planning Commission for its recommendation. (11/02)
- 507.6 (a) All amendments shall be advertised and written notices provided as required by Section 15.2-2204, Code of Virginia.
- (b) In the case of a proposed rezoning/zoning map amendment, the public notice shall state the general usage and density range, if any, of the proposed amendment, and the general usage and density range, if any, set forth in the applicable part of the Comprehensive Plan.
- (c) In the case of a proposed rezoning/zoning map amendment initiated under Section 507.3, the Town Planning Office shall be responsible for the giving of all written notices required by Section 15.2-2204. At least five (5) days prior to the first public hearing, the Town Planner shall supply an affidavit that the required written notices have been sent and a list of the persons to whom such written notice has been sent. (11/02)
- 507.7 A public hearing shall be held on a proposed amendment by the Planning Commission and by the Town Council, which public hearing may be joint. (11/02)
- 507.8 The Planning Commission shall act upon any proposed amendment referred to it within one hundred (100) days of the first meeting of the Planning Commission (i) after a resolution of the Town Council initiating the amendment, or (ii) after receipt of a complete application for a rezoning/zoning map amendment. Unless the time period is extended by resolution of the Town Council or by the request or consent in writing of the applicant for

related to a proper exercise of the police power. But an ordinance which excludes a large number of otherwise legitimate retail business uses from a retail business district, when nothing in the record shows that the uses excluded would be more detrimental to the public welfare than the uses permitted, is unreasonable and arbitrary. *Board of Supvrs. v. Rowe*, 216 Va. 128, 216 S.E.2d 199 (1975) (decided under prior law).

Zoning as to home occupations in residential areas. — Where the question is whether to permit home occupations in residential areas and, if so, to what extent, the legislative body necessarily engages in a balancing of interests that may vary from area to area as circumstances and conditions differ. *City of Manassas v. Rosson*, 224 Va. 12, 294 S.E.2d 799 (1982), appeal dismissed, 459 U.S. 1166, 103 S. Ct. 809, 74 L. Ed. 2d 1009 (1983) (decided under prior law).

In making its decision as to home occupations in residential areas, a legislative body properly may consider the necessity of keeping residential areas free of disturbing noises, increased traffic, the hazard of moving and parked vehicles, and interference with quiet and open spaces for child-play. Also pertinent are the possible consequences of permitting "outside" employees in home occupations. *City of Manassas v. Rosson*, 224 Va. 12, 294 S.E.2d

799 (1982), appeal dismissed, 459 U.S. 1166, 103 S. Ct. 809, 74 L. Ed. 2d 1009 (1983) (decided under prior law).

No authorization to exact payment to improve public highways. — Authorization under the enabling zoning statute to assure adequate access to a residential planned community does not imply authorization to exact payment for improvement of existing public highways. *Hylton Enters., Inc. v. Board of Supvrs.*, 220 Va. 435, 258 S.E.2d 577 (1979) (decided under prior law).

Ordinance providing parking permits only to residents and certain other persons. — A county zoning ordinance directing the county manager to determine those residential areas especially crowded with parked cars from outside the neighborhood, providing for free parking permits to be issued only to residents and persons doing business with residents, and making it a misdemeanor to park without a permit in the restricted area, did not violate the equal protection guarantee of the Fourteenth Amendment. *County Bd. v. Richards*, 434 U.S. 5, 98 S. Ct. 24, 54 L. Ed. 2d 4 (1977) (decided under prior law).

As to validity of piecemeal downzoning ordinance, see *Board of Supvrs. v. Snell Constr. Corp.*, 214 Va. 655, 202 S.E.2d 889 (1974) (decided under prior law).

OPINIONS OF THE ATTORNEY GENERAL

Virginia locality may adopt proffer policy that considers an adequate public facilities requirement. — A Virginia locality may adopt, as part of its comprehensive plan, a proffer policy that considers an adequate public

facilities requirement, with specified criteria, before applications for rezoning may be approved. See opinion of Attorney General to The Honorable Ronald S. Hallman, City Attorney for the City of Chesapeake, 00-060 (4/29/02).

§ 15.2-2284. Matters to be considered in drawing and applying zoning ordinances and districts. — Zoning ordinances and districts shall be drawn and applied with reasonable consideration for the existing use and character of property, the comprehensive plan, the suitability of property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements for airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation of flood plains, the preservation of agricultural and forestal land, the conservation of properties and their values and the encouragement of the most appropriate use of land throughout the locality. (Code 1950, § 15-821; Code 1950, § 15-968.4; 1962, c. 407, § 15.1-490; 1966, c. 844; 1974, c. 526; 1978, c. 279; 1981, c. 418; 1983, c. 530; 1989, cc. 447, 449; 1997, c. 587.)

CIRCUIT COURT OPINIONS

Proper parties. — In property owner's suit against a county and its board of supervisors over the denial of a request for re-zoning, as the governing body of the county was the board of supervisors, the defendants' demurrer to the complaint was sustained as to the county. *Dawson v. Loudoun County Bd. of Supervisors*, 59 Va. Cir. 517, 2001 Va. Cir. LEXIS 506 (Louisa County Oct. 22, 2001).

Joinder of additional necessary parties.

— As the provisions of § 15.2-2285 F do not

constitute either a statute of limitations or of repose, they do not prohibit the joinder of additional necessary parties to an action contesting a zoning decision after the 30-day period for the filing of an appeal has passed. *Gum Springs v. Loudoun County Supervisors*, 59 Va. Cir. 509, 2001 Va. Cir. LEXIS 508 (Louisa County July 27, 2001).

§ 15.2-2286. Permitted provisions in zoning ordinances; amendments; applicant to pay delinquent taxes. — A. A zoning ordinance may include, among other things, reasonable regulations and provisions as to any or all of the following matters:

1. For variances or special exceptions, as defined in § 15.2-2201, to the general regulations in any district.

2. For the temporary application of the ordinance to any property coming into the territorial jurisdiction of the governing body by annexation or otherwise, subsequent to the adoption of the zoning ordinance, and pending the orderly amendment of the ordinance.

3. For the granting of special exceptions under suitable regulations and safeguards; notwithstanding any other provisions of this article, the governing body of any locality may reserve unto itself the right to issue such special exceptions. Conditions imposed in connection with residential special use permits, wherein the applicant proposes affordable housing, shall be consistent with the objective of providing affordable housing. When imposing conditions on residential projects specifying materials and methods of construction or specific design features, the approving body shall consider the impact of the conditions upon the affordability of housing.

The governing body or the board of zoning appeals of any city with a population between 260,000 and 264,000 may impose a condition upon any special exception relating to retail alcoholic beverage control licensees which provides that such special exception will automatically expire upon a change of ownership of the property, a change in possession, a change in the operation or management of a facility or upon the passage of a specific period of time.

The governing body of any city with a population between 200,000 and 210,000 may impose a condition upon any special use permit issued after July 1, 2000, relating to retail alcoholic beverage licensees which provides that such special use permit shall be subject to an automatic review by the governing body upon a change in possession, a change in the owner of the business, or a transfer of majority control of the business entity. Upon review by the governing body, it may either amend or revoke the special use permit after notice and a public hearing as required by § 15.2-2206.

4. For the administration and enforcement of the ordinance including the appointment or designation of a zoning administrator who may also hold another office in the locality. The zoning administrator shall have all necessary authority on behalf of the governing body to administer and enforce the zoning ordinance. His authority shall include (i) ordering in writing the remedying of any condition found in violation of the ordinance; (ii) insuring compliance with the ordinance, bringing legal action, including injunction, abatement, or other appropriate action or proceeding subject to appeal pursuant to § 15.2-2311; and (iii) in specific cases, making findings of fact and, with concurrence of the attorney for the governing body, conclusions of law regarding determinations of rights accruing under § 15.2-2307. Notwithstanding the provisions of § 15.2-

Section 614 Older Person Residential (OPR) District

614.4 AGE REQUIREMENT

An age restriction enforcement plan shall be submitted with each subdivision or site plan application so as to ensure that all occupants of dwelling units conform to the age restrictions established for Housing for Older Persons. Such enforcement plans shall include:

- (a) the covenants, management regulations, or other similar legal instruments with enforcement by the property owner, homeowners association, or other private entity;
- (b) the identity of the private entity which shall be held responsible for any violation of the age restrictions for Housing for Older Persons;
- (c) a provision for an annual report to the Town of Berryville as to age status of the occupants of each unit; and
- (d) a provision which states that no person under nineteen (19) years of age shall reside in any unit for more than ninety (90) days in any calendar year.

614.5 MAXIMUM DENSITY

A Master Plan shall be submitted with a request for OPR zoning showing a general arrangement of uses and density for the subject property and all adjacent areas intended for OPR uses. The Master Plan shall show that the public service needs are no greater for the OPR uses than the public service needs for the uses planned for that sub-area. The number of average daily vehicle trips generated, the amount of sewage generated, the amount of water used, and demand on emergency services will be no greater with the proposed number of older person residential units and service uses than that generated by the maximum density of uses allowed by a property's land use designation. However, not more than three hundred (300) Older Person Residential units (including not more than one hundred twenty (120) multifamily units) shall be allowed in Annexation Area B as shown on approved subdivision plats or site plans.

614.6 MINIMUM DISTRICT SIZE

Minimum district size: three (3) acres

614.7 MAXIMUM BUILDING HEIGHT

Maximum building height: forty (40) feet

614.8 REGULATIONS FOR SINGLE FAMILY DETACHED DWELLINGS

- (a) Minimum lot size: 7,500 square feet
- (b) Minimum lot width: 60 feet
- (c) Minimum yard requirements
 - (1) Front Yard: 20 feet
 - (2) Side yard: 10 feet, except for corner lots, the side yard facing the side street shall be 20 feet or more for both main and accessory buildings
 - (3) Rear yard: 40 feet

director or the board of zoning appeals to excuse compliance with the special use permit requirement based on equitable reasons. *Foster v. Geller*, 248 Va. 563, 449 S.E.2d 802 (1994) (decided under prior law).

Considerations in granting special exception. — If a special exception is to be granted, and a special use of land in a certain district permitted, the legislative body granting the use must consider its relation to the public health, safety, morals and general welfare and whether the granting of the exception will be effective to subserve the public objectives set forth in the city's zoning ordinances. *Cole v. City Council*, 218 Va. 827, 241 S.E.2d 765 (1978) (decided under prior law).

Such exception cannot be granted if inconsistent with good zoning practices. — While public convenience and necessity, and general welfare, are important factors to be considered by a legislative body in the granting of a special use permit, they are not the sole considerations. The granting of a special exception in a zoning district is an action which must be taken within the framework of the zoning statutes and principles that apply to zoning. It cannot be taken if such action is inconsistent with good zoning practices. *Cole v. City Council*, 218 Va. 827, 241 S.E.2d 765 (1978) (decided under prior law).

A special exception to a zoning ordinance cannot be granted either by an administrative body operating under standards fixed by the legislative body, or by the legislative body itself, if such action be inconsistent with good zoning practices. *Cole v. City Council*, 218 Va. 827, 241 S.E.2d 765 (1978) (decided under prior law).

An ordinance which reserved to the Waynesboro City Council the authority to issue a special exception or use permit for the construction of a building in any zoning district in Waynesboro whenever, in its sole discretion, such action was justified by public necessity and convenience and the general welfare, without a consideration of good zoning practices or a consideration of the purposes of the zoning ordinances of the city or the objectives which zoning ordinances seek to accomplish, was invalid on its face. *Cole v. City Council*, 218 Va. 827, 241 S.E.2d 765 (1978) (decided under prior law).

Failure to apply for special exception. — Where, when property owner filed an application to rezone his property from A-2 to B-2, he told the commission and the county board of supervisors that he planned to operate an automobile graveyard, and the board rezoned his property, the board may have intended thereby to grant him a special exception; however, as an automobile graveyard was not then and is not now a permitted use in a B-2 zone, and the owner did not apply for a special exception, the board had no power to grant an exception by

implication, and the county government was not bound by the zoning administrator's opinion to the contrary. *Board of Supvrs. v. Board*, 232 Va. 478, 352 S.E.2d 319 (1987) (decided under prior law).

Setback and height requirements. — Nothing in this article prevents the alteration of setback and height requirements as part of the issuance of a special exception. *Bell v. City Council*, 224 Va. 490, 297 S.E.2d 810 (1982) (decided under prior law).

No right to require construction of turn lane and service road under subdivision (c) of former § 15.1-491 (see now § 15.2-2286 A 3). — A board of supervisors was not empowered to require the owners of a plant nursery, as a condition to approval of their application to expand, to dedicate land to the county and to build a right-turn lane and a service road. Nothing in the language of subdivision (c) of former § 15.1-491 (see now § 15.2-2286 A 3) empowered the board to impose the road dedication and construction requirements which it claimed it was empowered to impose. The right to grant special exceptions "under suitable regulations and safeguards" does not imply the power to require a citizen to turn land over to the county and build roads for the benefit of the public. *Cupp v. Board of Supvrs.*, 227 Va. 580, 318 S.E.2d 407 (1984) (decided under prior law).

The General Assembly's use of "above" in subdivision (g) of former § 15.1-491 (see now § 15.2-2286 A 7), in directing the governing body to make a legislative finding as to which purpose or purposes designated in the statute required their action, is unambiguous. *County of Fairfax v. Southern Iron Works, Inc.*, 242 Va. 435, 410 S.E.2d 674 (1991) (decided under prior law).

Governing body must state "above purposes" for amendment. — The plain language of this statute provides that in order to initiate a zoning ordinance amendment, the governing body must state the "above purposes" for the amendment. In its reference to "above purposes," the General Assembly has directed local governing bodies to determine which of the four previously-listed purposes necessitates their action, and to state for which of those purposes it is acting. *County of Fairfax v. Southern Iron Works, Inc.*, 242 Va. 435, 410 S.E.2d 674 (1991) (decided under prior law).

Board's resolution initiating zoning ordinance amendment stated public purpose. — The trial court erred in ruling that a board's resolution initiating a zoning ordinance amendment failed to state a public purpose as required by subdivision (g) of former § 15.1-491 (see now § 15.2-2286 A 7) where in its initiating resolution, the board stated the public necessity, the convenience, general welfare and good zoning practice required such action.

BERRYVILLE TOWN COUNCIL
MOTION TO INITIATE TEXT AMENDMENT TO
BERRYVILLE ZONING ORDINANCE

Date: April 14, 2015

Motion By:

Second By:

I move that the Council of the Town of Berryville initiate a text amendment to Section 614.5 of the Berryville Zoning Ordinance in order to increase the number of multifamily units permitted in the Older Person Residential (OPR) zoning district from 120 to 180 therefore reducing the number of single-family detached and/or single-family attached units from 180 to 120.

VOTE:

Aye:

Nay:

Absent:

ATTEST:

Harry Lee Arnold, Jr., Recorder

BERRYVILLE TOWN COUNCIL

Call Bond Proceeds - Chamberlain and McClellan streets and Section 4B

Battlefield Estates

April 14, 2015

Chamberlain and McClellan streets

A bond in the amount of \$23,902.50 is being held for work on Chamberlain and McClellan streets. The bond was originally approved by Town Council at the April 12, 2011 meeting. As a part of a five-lot subdivision in Battlefield Estates, the BADA included a condition that the applicant bond the repair and completion of Chamberlain and McClellan streets. Reparation has not occurred. There are currently three users on these streets: Mary Hardesty, Greenfield and Dillon (single-family house at 216 Chamberlain Street).

Section 4B (Delany and Beauregard courts)

Section 4B includes Delany and Beauregard courts and a portion of Mosby Boulevard. Seven of the 16 lots on these streets have been built and are occupied. There are at least three residents on both Delany and Beauregard courts. The portion of Mosby included in this section was paved last year and paperwork submitted by Town staff to VDOT (dated July 9, 2014) to bring this into the Town system. Public Works staff is confirming this mileage has been applied to our lane mileage reimbursement.

The original bonds (\$1,114,183.00 for public improvements; \$73,246.60 for erosion and sediment control) were set for this Section at the December 13, 2005 Town Council meeting. A request to reduce the bond amounts was approved by Council at their June 9, 2009 meeting. The amounts, reduced to \$152,691.00 (public improvements) and \$16,800.00 (erosion and sediment control) are currently in place.

Staff has discussed the process of obtaining bond proceeds with Bank of Clarke staff. Each of the three bonds requires a separate letter requesting the bonds be obtained by the Town for improvements identified in the respective Letters of Credit and identify how the money shall be distributed (check, direct deposit, etc.).

Recommendation

Adopt the following motion for obtaining bond proceeds to complete outstanding road projects as identified above.

BERRYVILLE TOWN COUNCIL
MOTION FOR THE USE OF BOND PROCEEDS TO
COMPLETE PUBLIC IMPROVEMENTS AND ASSOCIATED EROSION AND
SEDIMENT CONTROL IN BATTLEFIELD ESTATES

Date: April 14, 2015

Motion By:

Second By:

I move that the Council of the Town of Berryville direct staff to proceed with obtaining bond funds for the completion of McClellan and Chamberlain streets (\$23,902.50) and Section 4B (\$152,691.00 public improvements; \$16,800.00 erosion and sediment control), respectively.

VOTE:

Aye:

Nay:

Absent:

ATTEST:

Harry Lee Arnold, Jr., Recorder

BERRYVILLE TOWN COUNCIL
Construction Standards Update
April 14, 2015

Town staff has been working with the Virginia Department of Environmental Quality, the Town's engineer, suppliers and others to update the Construction Standards and Specifications Manual. The Manual includes general design guidelines for items including water and sanitary sewer construction; work in public rights-of-way; and utility acceptance procedures. The document also includes standard details for utility construction.

Material Specifications are included for Council's edification. The change to this document is the use of lead-free solders for coppersettlers in the water distribution system. This document is administrative in nature and allows for changes as they become necessary by staff.

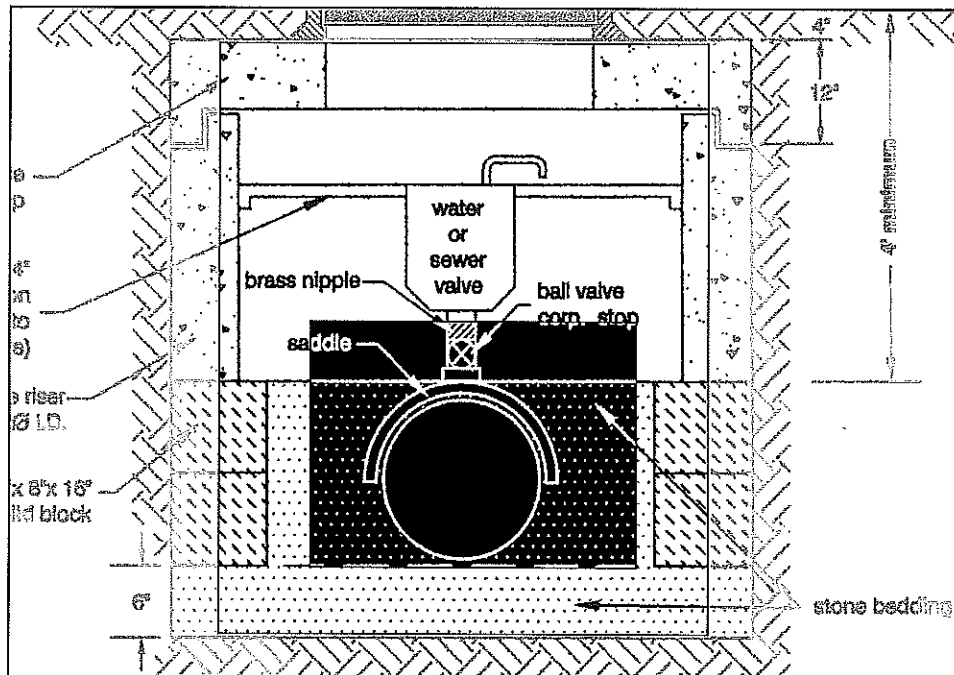
The updated items are identified in **bold** type, deleted items are ~~strike-throughs~~.

Utility staff is researching one additional change to the document (Chapter 6 Sanitary Sewer Manholes) as recommended by the Town's engineer. This change would remove the requirement for HDPE (high-density Poly Ethylene) sheeting around the sanitary sewer pressure main and replace it with a protective coating. Mr. Tyrrell has received specifications from the engineer and will be reviewing the information with Mr. Boor.

Recommendation

Approve the changes as presented allowing for review and, if deemed appropriate, modification Chapter 6 item I.B. A motion follows this report.

Town of Berryville



Construction Standards & Specifications

April • 2015

Section 1

General Information

I. Purpose and Authority

This document, entitled Town of Berryville Construction Standard and Specifications establishes standards for design and construction of public facilities being built for dedication to the Town of Berryville. This document shall be an administrative document that is approved by the Town Council.

II. Interpretation and Revision

These standards and guidelines are intended to supplement the provisions of applicable Federal and State regulations. Nothing herein shall be deemed to waive or modify other requirements of existing codes. Except as expressly provided otherwise in this document, the Assistant Town Manager for Community Development is the designated official charged with the administration of the standards and requirements contained in this manual. The Assistant Town Manager for Community Development may allow for variations of given standards where the effect of such variations is in keeping with established engineering practices and procedures and shall make the final decision on all questions regarding interpretation of this document, after reviewing recommendations from the designated departments, authorities, boards, and committees. For any areas where this document or the reference documents provide conflicting requirements, the Town of Berryville exceptions shall be followed. For other conflicts between requirements, the stricter of the two requirements shall be followed.

Qualified professionals are encouraged to seek innovative solutions to technical problems. However, to promote orderly development and to expedite plan processing and subsequent construction, standardized procedures and the use of minimum design standards must be employed. Familiarity with, and use of the standards set forth herein by designers, contractors, and inspection personnel, will result in more timely and economical project review, approval, and completion.

New information on design criteria, and changes in pertinent Federal and State laws, regulations, and standards will be reflected in periodic reviews and subsequent changes to the document. Appropriate notice will be given for public input and comment during the updating process. Any record plats, final site plans or construction plans and profiles submitted prior to the approval of any revisions shall comply with the standards in effect at the time of formal application.

Where standards of organizations such as the American Society for Testing and Materials (ASTM), the American Waterworks Association (AWWA), the American National Standards Institute (ANSI), the Commonwealth of Virginia, or Virginia Department of Transportation (VDOT) are referenced, the most current edition of the standard shall apply.

III. Severability

Should any section or provision of the document be decided by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the document as a whole, or any section thereof, other than the section or part thereof so held to be unconstitutional or invalid.

IV. Materials Specification Booklet

The **Materials Specifications Manual shall be approved by the Director of Public Works** ~~used in the construction of water and sewer lines in the Town of Berryville are contained in a booklet attached to this document or as specified by the Town.~~ These materials have been specified because they most suit the specific design criteria, maintenance needs, and cost requirements for the Town of Berryville. No substitutions beyond those listed in this book will be allowed. The Materials Specification Booklet will be updated regularly so care should be taken to ensure that contractors are using the latest booklet when preparing bids.

V. Noise

All contractors must comply with Town of Berryville Code Chapter 11 Noise.

VI. Dust Control

All contractors shall be responsible for minimizing dust while performing work associated with any approved permit or job award. The contractor, at the discretion of the Director of Public Works may be required to water down job sites. The contractor shall keep all road surfaces clean and free of debris in accordance with the Virginia Erosion and Sediment Control Handbook.

Section 2

General Design Standards

I. Provision for Future Growth

The Town may require the modification of certain proposed public improvements to provide adequate capacity for the logical extension of said improvements. Proposed facilities would include, but not be limited to, water lines, booster stations, water pressure control valves, sewer lines, and sewer pump stations. Costs for the provision of additional capacity or modifications as required above may be reimbursed by the Town or through agreements with other owners/developers.

II. Phased Construction

A. Delineation

If development is to be constructed in phases, plans shall clearly indicate by phase lines and notes, which facilities are to be constructed under each phase. Plans shall indicate locations of contour tie-ins for each phase and specific measures for phased termination of all water, sewer, storm drainage, streets and other public improvements. Construction plans for public improvements and utilities shall be designed so as to be fully functional at the completion of each phase and allow for construction of the next phase with a minimal impact to existing improvements. A temporary marker identifying the location of the utility termination shall be provided.

B. Bonding

Bonding of public improvements and erosion and sediment control measures as required by Town Ordinance shall be provided independently for each proposed phase.

III. Drainage

A. General

1. An evaluation shall be performed for all proposed drainage systems to ensure adequate hydraulic capacity for conveyance of the minimum ten-year event including, but not limited to, channels, storm water management facilities and conduits.
2. Hydraulic capacity must be verified with engineering calculations, in accordance with the procedures outlined in the *Virginia Erosion and Sediment Control Handbook*, the *Virginia Department of Transportation Drainage Manual*, *Town of Berryville Storm Water Management Ordinance*, and this manual. Submit two complete copies of drainage calculations with construction plans.

Calculations shall include a copy of the site grading and drainage plan, at the plan scale, upon which the boundaries, acreages, time of concentration paths and C-factors of the interior drainage areas shall be shown. Calculations shall also include a map at an appropriate scale delineating the boundaries,

acreages, time of concentration paths and C-factors of the drainage areas, upstream of the development, which would contribute storm water to the development.

3. Due consideration must be given to infrequent events (100-year) resulting in runoff quantities greater than minor system design capacity. The design for the major drainage system shall provide for overland relief of the 100-year event without flooding or damaging buildings and structures and without reliance upon the minor drainage system. The limits of the area affected by the 100-year event shall be represented on construction plans.
4. The drainage system shall be designed to honor all natural drainage divides and create no adverse impact on downstream properties; to account for all off-site storm water and; to convey discharge surface waters to the flow line of a natural watercourse or an existing underground or above-ground adequate conveyance system.
5. The owner or developer may not create a new discharge or concentrated storm water from a pipe, culvert, channel, or other drainage structure, onto or through lands of another, without first obtaining a permanent storm drainage easement and constructing improvements to guarantee continuity of an outfall from the point of discharge to the nearest natural or man-made watercourse.
6. If off-site downstream construction and easements are required to construct an adequate channel outfall, no plans shall be approved until such storm drainage easements, extending to the nearest natural or man-made watercourse, have been obtained and recorded. It will be the responsibility of the developer to obtain all off-site easements.
7. Energy dissipation devices and/or friction channel lining shall be used at and downstream of outfalls when discharge velocities exceed the maximum permissible as defined by the *Virginia Erosion and Sediment Control Handbook*.
8. Plans shall be prepared to preclude adverse impacts because of higher flow rates that may occur during construction.
9. Construction plans shall show the location, size, flow line elevations, profiles and details of all drainage facilities and structures, existing or proposed, including, but not limited to, swales, ditches, culverts under public streets and private drives, drop inlets, storm sewers and detention/retention ponds and pond outlet structures. Typical cross sections of all swales and ditches shall be shown.
10. Profiles of streets shall show profiles of storm sewers and cross sections of culverts together with point of intersection. Profiles shall show clearance of such drainage facilities with water mains and sanitary sewer.

B. Storm Sewer Systems

1. Design and capacity of culverts, inlets and piped storm drainage systems shall be in accordance with the requirements of the *Virginia Department of Transportation (VDOT) Drainage Manual*, latest release, *Town of Berryville Storm Water Management Ordinance*, **Virginia Department of Environmental Quality Storm Water Management Program** and this

manual. Proposed drainage facilities shall be sized for ultimate development conditions. Ultimate developed condition of currently undeveloped areas within a watershed shall be based upon the current or anticipated zoning of those areas.

2. Where a proposed drainage system is connected to an existing drainage system, the hydraulic gradient shall be computed through the existing system outfalls to daylight to demonstrate hydraulic capacity. System computations for the existing system will be made available by the Town to the designer for those systems for which the Town has this information. The Town Superintendent may waive this requirement when it has been previously determined that the receiving system is known to have sufficient capacity.
3. All storm sewer pipe within a public right-of-way or public drainage easement shall be reinforced concrete pipe with a minimum diameter of 15 inches or equivalent elliptical size. Storm sewer pipe which begins or ends within a public right-of-way or public easement shall be reinforced concrete for its entire length between terminal structures. All reinforced concrete pipe shall be Class III, or greater as conditions require. Installation shall be in accordance with VDOT Standard PB-1, joined using a tongue and groove connection with bitumastic sealant. Precast box culvert sections shall be joined using a closed-cell extruded rubber gasket, Delta Rubber "Omni-Flex" or Town-approved equal.
4. Reinforced concrete flared end sections shall be installed at the open ends of all storm drainage pipe. Concrete endwalls may be accepted 42 inches in diameter or less subject to approval by the Town Superintendent.
5. Minimum cover for storm sewer pipe shall be two feet vertically from finish grade to the outside crown of pipe, except where structural correction is provided and approved. Requests for less than two feet of cover shall be recorded on the plans and clearly denoted. Test pits will be required and shall be shown on the plans for all crossings which involve gas lines, water mains, sanitary sewer crossings which have minimum clearance, and all fiber optic telephone service lines. Test pits shall be dug and clearances verified prior to installing any portion of the storm sewer system. Test pits as basis of design may be required at the discretion of the Town Engineer.

IV. Water & Sewer

A. General

A Preliminary Design Report shall be submitted to the Town which shall describe the additions to the water distribution and sewerage collection systems, and at a minimum shall include:

1. Number of units, with the estimates for water usage and wastewater production.
2. Hydraulic calculations for the proposed water system and existing water system to insure that adequate pressure and volume can be sustained to the new development without reducing pressure or volume in other areas of the existing system.

3. Hydraulic calculations for the proposed sewerage collection system and all existing lines or pump stations that may be impacted.

B. Design Practices

1. Scope

- a. This section is included for the clarification, information and benefit of the engineering design community, to act as a guide to the practices of the Town. This section is a compilation of a variety of typical practices to be followed in the layout and design of water distribution and wastewater collection systems of the Town. The information contained in this section must be applied in conjunction with the regulations of the Commonwealth of Virginia Department of Environmental Quality, Virginia Department of Health Waterworks Regulations and the other sections of this manual.
- b. Many criteria listed are minimums. Additional separations and clearances are to be furnished as practical to optimize each design. Attention shall be given to locating utilities so as to facilitate their re-excavation. The Town will consider factors such as depth and magnitude of facility in determining the adequacy of each design, and may relax or increase dimensional requirements accordingly. In general, a design is to be sought which minimizes length of piping and number of appurtenances, while providing a system which minimizes maintenance costs.
- c. Because of the wide variety of situations that arise, it is impossible to address all scenarios. The Town reserves the right to exercise engineering judgement and will have the final decision on the acceptability of design.
- d. The Town reserves the right to amend or modify this document without notice and to interpret the meaning of all statements made herein.

2. Water Distribution

a. Design Flows

- (i) Fire Flows. The water distribution system piping and any extensions thereof shall have adequate capacity to supply the normal (average) and peak hour demands of all customers – domestic, public, commercial and industrial – while maintaining a pressure of not less than 30 pounds per square inch at all points of delivery. In addition, the piping system shall be capable of delivering on the day of maximum customer demand, flows required for fire protection to at least one (1) point within 300 feet of each building being served or proposed to be served by such system and extension, while maintaining a residual pressure of not less than 20 pounds per square inch at the point of service. Flows required for fire protection shall be a minimum of 750 gpm for Single Family Detached Dwelling developments, 1,500 gpm for Attached Residential or Apartment (3 stories or less), and 2,000 gpm for Commercial and Industrial developments.

- (ii) Daily Demands. The following criteria will be used in estimating demands for water and accomplishing hydraulic design of the system.
- (a) Average day, maximum day and peak hour demands to be used in system hydraulic design will be estimated using the following parameters:
1. Residential Population
 $= N = \text{number of dwelling units} \times 2.75$
 2. Average daily water demand of residential population in gallons per day (g.p.d.)
 $= R = N \times 100$
 3. Average daily commercial and industrial water demand in g.p.d.
 $= C = \text{number of commercial and industrial employees} \times 100^*$
 $^*\text{NOTE: Appropriate additional water demand allowance shall be made for commercial and/or industrial establishments of types having water demands in excess of 100 g.p.d. per employee.}$
 4. Average daily school water demand in g.p.d.
 $= S = \text{number of staff employees and students} \times 20$
 5. Average daily water demand in g.p.d.
 $= A = R + C + S$
 6. Maximum daily water demand in g.p.d.
 $= M = A \times 2$
 7. Peak hour demand in g.p.m. is calculated using the formula provided in the Waterworks Regulations 12 VAC 5-590-690
 $= Q = 11.4 \times N^{0.544}$

- (iii) Distribution piping design will be based upon providing flows and service pressures in accordance with these standards from the supply design gradient (HGL) furnished by the Town. Hydraulic design of distribution piping will be based on pipe carrying capacities consistent with head losses determined in accordance with the following:

<u>Pipe Diameter</u>	<u>Hazen-Williams Coefficient "C"</u>
6"	100
8"	110
10"	115
12" or greater	120

3. Wastewater Collection
- a. Design Flows
- (i) Tributary Population

- (a) Sewer systems, which provide for a complete watershed, shall be designed and sized assuming the entire watershed to be completely developed according to present or planned land use designation whichever requires the greater capacity.
 - (b) Sewer systems initially developed for only a part of a complete watershed shall be sized to provide for the entire watershed. Otherwise, if acceptable to the Town, physical provision shall be made for future increased capacity. Proper modification to allow for the characteristics (i.e. domestic, commercial and industrial wastes, and ground water infiltration) of the area under consideration shall be made.
- (ii) Capacities
 - (a) In determining the required capacities of sanitary sewers, the following factors shall be considered:
 - (1) Maximum hourly quantity of domestic sewage.
 - (2) Additional maximum sewage or waste from industrial plants and commercial areas.
 - (b) New sewer systems shall be designed on the basis of an average per capita flow of sewage from the equivalent population served of not less than 100 gallons per capita per day. Lateral and submain sewers shall be designed for a minimum of 400% of the average flow, main and trunk sewers shall be designed for a minimum of 250% of the average flow, and interceptors shall be designed for a minimum of 200% of the average flow.
 - (c) Computations shall use a roughness coefficient (n) in the Mannings Formula of 0.014. However, other values may be used for situations where sufficient engineering justification can be demonstrated.
 - (d) The 100 gallons per capita per day figure is assumed to cover normal infiltration, but an additional allowance shall be made where conditions are especially unfavorable.
 - (e) The minimum allowance for flow from single-family detached residences shall be based on 3.5 people per home. For single-family attached residences or dwelling units in multifamily structures, a basis of 3 people per unit may be used.
 - (f) Unless evidence is presented to prove a different flow from industry at ultimate development, the minimum allowance for industrial flow shall be determined by providing an equivalent population of 40 persons per acre or one (1) equivalent population per employee, whichever is the greater, in the industrial area. "Area" shall include the entire area zoned for industry, except public road, street, and highway rights-of-way, flood plains on which construction is prohibited, and "green zones" separating industrial from residential areas, on which construction is prohibited.

- (g) The minimum allowance for flows from commercial areas shall be determined by providing an equivalent population of 30 persons per acre, or one-half (1/2) equivalent population per employee, whichever is the greater, in the commercial area. "Area" shall include entire area zoned for commercial development, including off-street parking and landscaped areas, but excluding the rights-of-way of public roads, streets and highways, flood plains of streams on which construction is prohibited and "green zones" 100 feet or more wide separating commercial from residential areas, on which construction is prohibited.
- (h) Sewer size shall not be less than eight inches in diameter, except under the following conditions:
1. Laterals serving six connections or fewer on cul-de-sacs or as sidewalk collector lines may be six inches in diameter.
 2. ~~Sewer lines carrying settled sewage, such as septic tank effluent, may be as small as 1 1/2 inches in diameter.~~
- (i) Minimum Gravity Sewer Slopes

Sewer Size	Minimum Slope in Feet per 100 Feet	
	Nonsettled Sewage	Settled Sewage
3 inch.....	Not Allowed	0.53
4 inch.....	Not Allowed	0.47
6 inch.....	0.49	0.21
8 inch.....	0.40	0.15
10 inch.....	0.28	0.12
12 inch.....	0.22	0.086
14 inch.....	0.17	0.068
15 inch.....	0.15	0.063
16 inch.....	0.14	0.058
18 inch.....	0.12	0.050
21 inch.....	0.10	0.040
24 inch.....	0.08	0.034
27 inch.....	0.067	0.029
30 inch.....	0.058	0.025
36 inch.....	0.046	0.020

All sewer shall be nonsettled unless pre-approved by the Director of Public Works.

- (j) Minimum flow velocities of 1.3 fps and 2 fps are required for settled and non-settled sewage, respectively.
- (k) Special provisions must be made to protect against internal erosion when flow velocities exceed 15 fps.
- (l) A minimum sewer burial depth to protect against freezing shall be 24".
- (m) In cases where the above criteria are not applicable, an alternate design procedure may be submitted to the Town for

approval. A description of the procedure used and justification for the modifications for sewer design proposed shall be included with the Design Analyses and plans submitted for approval.

V. Easements

Where the Town of Berryville permits the construction of water, sewer, or storm water improvements (town utilities) outside of the public right-of-way, the following shall apply:

- A. Town utilities approved such that they will not be in the public right-of-way shall be located in easements conveyed to the Town of Berryville. Such easement shall include language and conditions as required by the Town and will be approved by the Town prior to recordation.
- B. Easements shall be located so as to provide access to all parts of the utility without interference from abutting buildings, fences, and other private improvements.
- C. Easements shall not be centered on property lines but shall run parallel to boundary lines to the greatest degree practical. Easements may straddle boundaries, provided that the associated channel or pipeline is offset from the boundary.
- D. Easements must remain clear of buildings, trees, fences, and other improvements, and underground structures other than the designated utility. Fence sections may be erected across an easement section so long as the section contained within the easement is a gate through which personnel and equipment may enter the property. Trees planted in and/or improvements erected within a utility easement that are damaged or destroyed in the course of utility inspection, maintenance, or reconstruction will not be replaced or paid for by the Town of Berryville.
- E. Easements shall be a minimum of twenty (20) feet in width; however, the Town reserves the right to require wider easements as deemed necessary.
- F. Town utility easements are exclusive. Other utilities may only cross the town's easement, and such crossings must be at or near a 90-degree angle.

VI. Submission of Calculation Data in Digital Format

- A. Engineering calculations used in the design of public improvements shall be submitted to the Town in digital format for review.
- B. Submissions for water system design shall be on a master development plan that includes the locations of the water mains. The plan(s) shall be paper drawings or provided in an AutoCad compatible format. In addition, the plans shall be a scale accurate drawings referenced to the State Plane Coordinate System.
- C. Submissions for sanitary sewer system design should be provided in Microsoft Excel format, or Heastead input/output files.

- D. Submissions for storm drain system, and storm water management design should be provided in Microsoft Excel format, or Heastead input/output files, or Soil Conservation Service TRT -20 or 55 format.

VII. Transferring of Pump Station Ownership

- A. Ownership of pump stations will occur only after final acceptance **in writing** of a completed project.
- B. The developer will be responsible for any maintenance as a result of construction defects of said facilities for one year from the date of Final Acceptance.

VIII. Streets and Related Improvements in the Public Right-of-Way

- A. All activity performed in the public right-of-way requires an approved permit from VDOT or the Town of Berryville. VDOT maintains public primary roadways (Business Route 7 and SH 340). The Town of Berryville maintains public secondary roadways.
- B. All work performed under a permit issued by the Town of Berryville must be performed in accordance with the following as applicable:
 - 1. Berryville Town Ordinances
 - 2. Berryville Construction Standards and Specifications
 - 3. VDOT Road and Bridge Standards, current edition
 - 4. VDOT Road and Bridge Specifications, current edition
 - 5. Manual on Uniform Traffic Control Devices (MUTCD) including the VDOT supplement
 - 6. VDOT Manuals on Planting and Irrigation in the Right-of-Way
 - 7. VDOT Land Use Permit Manual
 - 8. Virginia Erosion and Sediment Control Handbook
- C. Right-of-way dedication and acceptance of public streets not maintained by VDOT shall be evidenced by authorized signatures on the deed of dedication or other instrument deemed acceptable by the Town of Berryville.
- D. In order to obtain guarantee of performance to assure timely completion and competent construction of physical improvements, the applicant is required to post a bond or other acceptable surety as identified in Article VII. Performance Surety, of the Town of Berryville Subdivision Ordinance and Article III, Section 314.8 Construction and Bonding of the Town of Berryville Zoning Ordinance.
- E. Performance bonds shall be submitted to the Town of Berryville for review and approval for those streets in the Town's system (secondaries).
- F. Dedication and acceptance of public streets shall be in compliance with VDOT Memorandum SR-50-93, Guide for Additions, Abandonments, and Discontinuances, current edition.

Town of Berryville Construction Standards and Specifications - April 2015
Section 2 * General Design Standards

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Section 3

Water Main and Appurtenances

I. General

- A. This section includes construction of distribution system mains, service laterals, and other associated appurtenances. Also included are testing and disinfection requirements.
- B. All mains shall be cement mortar lined ductile iron or PVC (C909), with a minimum diameter of six inches (6"). The pipe shall have rubber gasket push-on joints, and all fittings shall be mechanical joint except ~~where otherwise shown on the Plans~~ **as approved by the Town**. Where special fabrication of ductile iron pipe is required to fit water mains within vaults, structures and buildings, the Contractor shall submit fully dimensioned drawings showing the piping in full detail with exact locations, dimensions, and schedules of all pipe, fittings, hangers, supports, and appurtenances before starting fabrication of the pipe and/or fittings. Where special fittings are required, they shall be shown in detail with all necessary dimensions. The design of such installations shall provide adequate space within the housing, and around the fittings to allow easy disassembly of pipe sections or other appurtenances.
- C. Utility Locations: Water mains shall be located a minimum of three (3) feet from the gutter of the streets with curb and gutter; or three (3) feet within the pavement edge of streets without curb and gutter. Whenever practical, sewer mains shall be located in the center of the street. A minimum 10 foot horizontal separation (outside to outside), or 6 feet horizontal separation with at least 1.5 foot vertical separation from bottom of water to top of sewer, shall be provided between all water lines and sanitary sewer lines. Should conditions require the water and sewer lines to be installed in the same trench, the water line must rest on a shelf of undisturbed earth to one side of the sewer with at least 18 inches of vertical separation between the top of the sewer line and bottom of the water line. Approval from the Town Engineer and Director of Public Works must be acquired before same trench installation is permitted. Typical minimum cover of four feet is to be provided for water mains. For short distances, reduced cover of as little as three feet may be approved, so as to preclude locating water below a crossing utility.

II. Mains

- A. Ductile Iron Pipe
 - 1. Ductile iron pipe shall be manufactured in accordance with ANSI A21.51/ AWWA C151. All pipe shall have a minimum Class 52 thickness.
 - 2. End designs shall conform to the ANSI/AWWA C 111/ A21.11 – "Rubber Gasket Joints Ductile Iron and Gray Iron Pressure Pipe and Fittings" Push-on

joints shall be "Tyton," "Super Bell Tite" or "Fast-Tite" joint, or approved equal.

3. The inside of the pipe shall be cement lined in accordance with ANSI/AWWA C 104/ A21.
4. Flanged connections shall only be permitted where indicated on construction plans **and pre-approved by the Town**, and shall conform to ANSI/AWWA C115/A21.15.

B. PVC (C909) Pipe

1. Select Backfill

- a. There shall be 24" of select backfill above the stone aggregate which shall be compacted in eight inch lifts. The maximum particle size of the backfill material shall be no greater than one (1) inch. Backfill shall be compacted to 95% of maximum density.
- b. Above the select backfill, material shall be deposited in lifts not to exceed two (2) feet, and have a compaction to 95% of maximum density.
- c. A six (6) inch wide magnetized locating ribbon labeled "WATER LINE BURIED BELOW" shall be placed above the select fill.
- d. No rock shall be used in the select backfill. Any rock used *above* the select backfill shall be no larger than six (6) inches in diameter.
- e. A #12 gauge wire shall be placed next to the PVC (C909) line during installation of the main. This wire must maintain positive continuity at all times.

2. Stone Bedding

1. For excavation in dirt or clay, there must be six (6) inches of stone under and over the pipe.
2. For excavation through rock, there shall be twelve (12) inches of stone under and over pipe in rock trenches.

C. Fittings

1. All fittings shall be cast of ductile iron, and shall conform to ANSI/AWWA C153/A21.53. Fittings shall be made with mechanical joint ends in accordance with ANSI/AWWA C 111/A21.11.
2. A sufficient number of bolts, nuts, glands and gaskets shall be provided for each fitting. These accessories shall be of the proper dimensions for the size pipe. The bolts shall be made of high strength low alloy steel in accordance with ANSI/AWWA C 111/ A21.11.
3. The cement lining, shall conform to ANSI/AWWA C 104/A21.4.

III. Handling Ductile Iron Pipe and Fittings

- A. It shall be the responsibility of the pipe manufacturer to thoroughly inspect each length of pipe according to the applicable ANSI and AWWA standards and other requirements as set forth in these specifications.

- B. Ductile iron pipe, fittings, valves and accessories shall be handled in strict accordance with the provisions of ANSI/AWWA C 600, so as to ensure that these items are sound, undamaged, and entirely suitable in all aspects to the specified requirements of each particular fitting, pipe and accessory. Particular care shall be taken not to injure either the coating, the pipe or threads. Equipment, tools and methods used in loading, reloading, unloading, hauling and lying pipe and fittings shall be such that no damage is done to the pipe or the coatings. Where hooks are used for lifting, they shall have broad well-padded contact surfaces. Repair of defective or damaged coatings or linings shall be made under the direct supervision of a representative of the pipe manufacturer. No field repair work may be done on any damaged pipe coating or lining without the prior approval of the Town. Any bituminous pipe coating that is damaged by shipment or by the Contractor shall be repaired, prior to installation or placing of any backfill or hanging within hangers. Repairs shall be made by removing all damaged coating, then wire brushing to expose the metal, and applying two coats of coal tar coating material of a type and quality equal to that used originally for the bituminous coating of the pipe.
- C. Cutting, cleaning and inspecting ductile iron pipe: The cutting pipe for closure pieces or for other reasons shall be done in a neat and workmanlike manner by a method that will not damage the pipe or its lining. Sections shall be thoroughly swabbed or cleaned of all foreign matter before being installed into the system and shall be kept clean during and after installation. Before installation of any pipe or fitting, each piece shall be inspected for defects. All defective, damaged or unsound pipe or fittings shall be rejected.

IV. Installation

- A. Pipe laying shall be conducted in strict accordance with the provisions of ANSI/AWWA C 600. The lay shall proceed with the bell end of the pipe pointing in the direction of the next pipe joint to be laid. Each pipe shall be laid true to line and grade and in such manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line. Proper precautions shall be taken to keep the interior of the pipe free of all dirt and superfluous materials of every description as the work progresses.
- B. Trenches shall be kept free from water until the pipe jointing is complete. At all times when work is not in progress, open ends of pipe and fittings shall be securely closed to the satisfaction of the Town so that no trench water, earth or other substance will enter the pipe or fittings. Adequate backfill shall be deposited on the pipe to prevent floating. Any pipe which has floated shall be removed from the trench and be re-laid.
- C. All tees, bends and dead ends shall be restrained by means of concrete blocking, and be installed with MegalugTM retainer gland or approved equal.

- D. ScotchMark Electronic Marker System (EMS 1257) or approved equal shall be included with the installation of all water mains. The markers shall respond to a frequency of 145.7 kHz, with placement as follows:
 - 1. 50-foot intervals on mains.
 - 2. Each bend
 - 3. The end on each joint that is deflected and each "T"
 - 4. Any additional location directed by the Town of Berryville
- E. A six-inch wide magnetized location ribbon labeled [water line buried below] shall be installed above the select backfill.
- F. A #12 gauge wire shall be placed next to all main lines and service laterals. The wire shall maintain continuity at all times.

V. Separation of Water Lines and Sewers

- A. General – The following factors shall be considered in providing adequate separation:
 - 1. Materials and types of joints for water and sewer pipes.
 - 2. Service branch connections into the water line and sewer lines.
 - 3. Space for repairs and alterations of water and sewer pipes.
 - 4. Avoiding offset of pipes around manholes.
- B. Parallel Installation
 - 1. Normal Conditions – Water lines shall be laid at least ten feet horizontally from a sewer or sewer manhole wherever possible. The distance shall be measured edge-to-edge.
 - 2. Unusual Conditions – When local conditions prevent a horizontal separation of ten feet, the water line may be laid closer to a sewer or sewer manhole provided that:
 - a. The bottom (invert) of the water main shall be at least 18 inches above the top (crown) of the sewer. Should conditions require the water and sewer lines to be installed in the same trench, the water line must rest on a shelf of undisturbed earth to one side of the sewer with at least 18 inches of vertical separation between the top of the sewer line and bottom of the water line. Approval from the Town Engineer and Director of Public Works must be acquired before same trench installation is permitted.
 - b. The sewer manhole shall be of watertight construction and tested in place.
 - c. Where vertical separation of at least 18 inches cannot be maintained between the bottom of the waterline and the top of the sewer, the sewer line shall be constructed of water pipe conforming to AWWA C 900 and shall be pressure tested in place, as specified in AWWA standard C 600, with a minimum test pressure of 30 psi. Leakage is not permitted during the AWWA C600 pressure testing.
 - d. When sanitary sewers cross over water lines, the sewer joints must also be centered at the point of crossing so that joints are equidistant and as far as possible from the water line.

- e. Sewer Manholes and Drainage Structures —A minimum of 10 feet (outside to outside) of separation shall be provided between water pipes and sanitary sewer manholes. Where this distance cannot be maintained, the manhole shall be of watertight construction and tested in place. A minimum of 6 feet of separation shall be maintained between waterlines and drainage structures.

C. Crossings

1. Normal Conditions – Water lines crossing sanitary and storm sewers shall be laid to provide a separation of at least 18 inches between the bottom of the water line and the top of the sewer.
2. Unusual Conditions – When local conditions prevent a vertical separation described in C.1., or where waterline must cross below sanitary sewers, the sewer line shall be constructed of water pipe conforming to AWWA C 900 and shall be pressure tested in place, as specified in AWWA standard C 600, with a minimum test pressure of 30 psi. Water lines passing under sewers shall, in addition, be protected by providing:
 - i) A vertical separation of at least 24-inches between the bottom of the sanitary sewer and the top of the water line.
 - ii) Adequate structural support for the sewer to prevent excessive deflection of the joints and the settling on and breaking of the water line.
 - iii) That the length of the water line be centered at the point of the crossing so that joints shall be equidistant and as far as possible from the sewer.
 - iv) When conditions do not allow for water lines to pass over storm sewers, a minimum of 18 inches clearance shall be maintained from top of water line to bottom of storm sewer.
 - v) If conditions do not allow for separation during installation around existing structures, bridging or other methods of protecting water quality and pipe integrity may be submitted and considered for approval by the Town Engineer. New Construction must maintain required separations.
3. Stream Crossing and highway crossings shall be installed as shown in the Standard Details unless otherwise specified. The crossing shall be made in such a manner to minimize erosion and blockage of the stream flow. Backfill under the rip-rap shall be compacted to ninety percent density.

VI. Testing and Disinfection of Water Lines

A. General

The Contractor will supply the water used for flushing, disinfection, and testing. If Town water is used, the water shall be metered and the contractor shall pay the Town for its cost. Filling of water lines may not be performed until permission has been obtained from the Town Superintendent. The contractor is not permitted to operate valves on any existing water line.

B. Testing

1. All new water mains and hydrant connections shall be subject to a hydrostatic pressure test after thrust restraints have been installed, the line has been backfilled, and at least 3 days after the last concrete reaction anchor has been poured and all water house connections have been installed (lateral from main to meter box). Testing shall be in accordance with AWWA C-600. Water mains shall be filled with clean water at a velocity of approximately 1 foot per second while necessary measures are taken to eliminate all air. A hydrostatic pressure of not less than 150 psi or 150% of normal operating pressure, whichever is greater, shall be maintained for two (2) hours. Lines of different sizes shall be tested separately. Hydrants shall be in the closed position. All high points in the portion of the system under test shall be vented and air shall be expelled from the system prior to beginning the test.
2. After the portion of the system under test has reached the required pressure as stated herein, the pressure shall be maintained for two (2) hours. At the conclusion of the pressure test, the volume of the makeup water required to refill the pipeline shall be determined by measurement with a displacement meter or by pumping from a vessel of known volume.
3. All visible leakage must be eliminated by the contractor, regardless of the amount. Should test results show displacement, damage or leakage in excess of the allowable amount (see table below for representative values), the contractor shall repair the displacement and damage to eliminate the leakage. The contractor shall retest until the specified conditions are met to the satisfaction of the Town Superintendent.

Allowable Leakage per 1,000 feet of Pipeline – gph
Nominal Pipe Diameter – in

Psi	4	6	8	10	12	16
250	0.47	0.71	0.95	1.19	1.42	1.90
225	0.45	0.68	0.90	1.13	1.35	1.80
200	0.43	0.64	0.85	1.06	1.28	1.70
175	0.40	0.59	0.80	0.99	1.19	1.59
150	0.37	0.55	0.74	0.92	1.10	1.47

The above table is presented for convenience only. Please refer to AWWA C600 for complete up-to-date table.

C. Disinfection

1. After leakage testing, and before final inspection of the completed systems, water mains shall be flushed and then disinfected in accordance with ANSI/AWWA C-651-99 standards. All disinfection procedures and final testing shall be carried out under the observation of a utility inspector approved by the Town Superintendent. Either the tablet method or continuous feed method shall be used.
 - a) The tablet method can only be used if the pipes and appurtenances are kept clean and dry during construction. The mains should be filled at the rate of 1 ft/sec or less. Water must remain in the main for a minimum of 24 hours when the water temperature is 41 F (5 C) or more. If the water temperature drops below this then the water must remain a minimum of 48 hours. A detectable chlorine residual should be found at each sampling point after the prescribed contact time.
 - b) If the continuous feed method is to be used, a preflushing shall be accomplished at a flow velocity of not less than 2.5 feet per second. All valves, hydrants, and water house connection shall be operated during this operation. Clean water shall be flushed throughout the system until there is no trace of cuttings, oil, dirt, or other foreign matter flowing out of the pipe. The water shall be chlorinated so that after the 24 hour contact time, a free chlorine residual of not less than 10 ppm is maintained.
2. Final flushing will occur as soon as practically possible after the required contact time to prevent damage to the pipe lining or to prevent corrosion damage to the pipe itself. When the chlorine residual has been reduced to within the range of 0.2 and 2.0 ppm, bacteriological samples can be collected.
3. Bacteriological Sampling – Water samples for bacteriological analysis shall be taken by the contractor at regular intervals not exceeding 2,000 feet, as approved by the Town, witnessed by the utility inspector, and analyzed by a certified laboratory. Two satisfactory bacteriological samples, collected twenty-four hours apart must be obtained prior to placing the lines in service. Satisfactory samples are those that indicate the presence no coliform bacteria. If contamination is found in one or both sets of samples, the entire disinfection and bacteriological sampling procedure must be repeated.
4. It is expected that any water flushed from the mains will have to be dechlorinated with a neutralizing chemical to insure that environmental damage will not occur. The recommended neutralizing chemicals, and procedural guidelines for dechlorination are explained in the ANSI/AWWA C-651 standards. The contractor shall be responsible for the proper application of the neutralizing chemicals to reduce the chlorine residual to a non-detectable level. The contractor shall assume full responsibility for the discharge of all water used during any flushing, and shall be responsible for any environmental damage including, but not limited to, vegetation, trees, streams, ponds, lakes, or any other damage to public or private property.

VII. Service Laterals

A. General

1. All material used shall meet or exceed ANSI/AWWA C800 standards.
2. All taps made on ductile iron mains shall be made direct, without a saddle, unless otherwise specified or approved by the Town.
3. Where applicable, and when tapping PVC mains, a Ford Style FS202 or approved equal shall be used.
4. All water services shall be installed as per Standard Detail shown in Specification Detail section.
5. Service lines shall be type 200 psi HDPE copper tubing sized piping conforming to ANSI/ASTM standard specifications. The line shall be one continuous piece from corporation stop to meter setter and the line will be equal to the size of the corporation stop. Line must be accompanied by a twelve gage copper tracer wire.
6. Meter boxes will be set on the street side at the property line, unless approved by the Town.

B. ¾-Inch Water Service

1. Corporation stop shall be ¾" ball style and conforming to the requirements of the AWWA Standards. Connection at the corporation stop shall be compression.
2. The meter box shall be 18 inches in diameter, and 30 inches in depth, with an 18 inch diameter frame and 11½ inch diameter lid. The frame and lid shall be made of cast iron, and lid shall include the FP cast iron plug where applicable.
3. The meter setter shall consist of a copper setter, inlet angle valve, and outlet angle ASSE approved dual check valves (top loading).

C. 1 Inch Water Service

1. Corporation stop shall be 1 inch in size and ball style and conforming to the requirements of the ANSI/AWWA B88 Standards. Connection at the corporation stop shall be compression type.
2. The meter box shall be 18 inches in diameter, and 30 inches in depth, with an 18 inch diameter frame and 11½ inch diameter lid. The frame and lid shall be made of cast iron, and lid shall include the FP cast iron plug where applicable.
3. The meter setter shall consist of a copper setter, inlet angle valve, and outlet angle ASSE approved dual check valves (top loading).

D. 1½ and 2 Inch Water Services

1. Service shall be taken off the main by means of a wet tap or an anchoring tee, with 6 inch branch and a 6 inch branch valve. A tapped mechanical joint plug shall be used in the downstream side of this valve, with a male IPT to compression adapter.
2. The meter shall be set in a custom box with a custom meter setter consisting of a flanged angle valve on the inlet and an ASSE approved dual check valve on the outlet. The setter shall include a by-pass with ball valve and locking cap.

3. Meter vault shall conform to the dimensions shown in the Standard Details, or as approved by the Town.

VIII. Backflow Prevention Assemblies

- A. Each metered service connection must have an A.S.S.E. (American Society of Sanitary Engineers) approved backflow prevention device installed for service line protection. The Town must approve the type of device submitted based on the degree of hazard of the planned use.
 1. Metered service lines with a low degree of hazard must be provided with a double-check valve backflow prevention assembly that is tagged, stamped, or embossed to indicate it meets A.S.S.E. Standard No. 1015.
 2. Metered service lines with a high degree of hazard must be provided with a reduced pressure zone device that is tagged, stamped, or embossed to indicate it does meet A.S.S.E. Standard No. 1013.
 3. **Backflow prevention devices that require yearly inspection must be installed above grade and/or in a location not subject to flooding. The location of a backflow prevention device is to be approved by the Town's Director of Utilities.**
- B. Each fire line service connection must have an A.S.S.E. approved backflow prevention device with leak detector installed for fire service line protection. The Town must approve the type of device submitted based on degree of hazard of the planned fire service.
 1. Fire lines with a low degree of hazard (no additives or antifreeze) must be provided with a detector double check backflow prevention assembly with A.S.S.E. Standard No. 1048 identification made part of the device.
 2. Fire lines with a high degree of hazard (additives or antifreeze) must be provided with a reduced pressure assembly with A.S.S.E. Standard No. 1047 identification made part of the device.
- C. All detector (metered) assemblies are required to have a meter that is compatible with the Town's meter reading device.
- D. All backflow prevention devices must be inspected annually by the owner and a report submitted to the Town's Director of Utilities for review. Residential premises without secondary uses, exclusive of multifamily that present a low degree of hazard (no additives or anti-freeze), are not required to submit annual reports.

A written request to the Director of Public Works is required for necessary inspections for acceptance of improvements. The request shall include as-built drawings, easements and other pertinent information as deemed necessary by the Department of Public Works and the Town's Engineer. A response from the Department of Public Works after review will be forwarded to the applicant outlining deficiencies or for approval of the project.

Town of Berryville Construction Standards and Specifications - April 2015
Section 3 * Water Main and Appurtenances

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Section 4

Valves and Hydrants

I. General

- A. Valve or hydrant manufacturer shall be regularly engaged in the design, manufacture, and maintenance of valves or hydrants of the type specified, and shall have furnished valves or hydrants of the same general design, type, and comparable size specified herein, which have been used and proved satisfactory under similar test, service, and operating conditions for at least five years. The manufacturer shall furnish satisfactory evidence of adequate facilities for furnishing parts for repairs and for maintenance of the hydrants or valves furnished. Unless otherwise indicated, valves shall be designed to provide tight shut-off at the following pressure differential: 250 psi upstream and 0 psi downstream in either direction. Design flows shall be a minimum 15 feet per second for opening and closing.
- B. All valves furnished through 12 inches shall be resilient wedge-valves with nonrising stems. Valves larger than 12 inches shall be butterfly type unless otherwise required by the Town.
- C. A valve box shall be provided for each buried valve. Boxes shall be screw type. Telescoping type are prohibited. Extension stems shall be provided for valves where the operating nut is greater than 4'-0" below grade. The stem shall extend to a minimum of 2'-0" below finished grade.
- D. Unless otherwise specified herein, 4-inch and larger valves and all hydrants shall have mechanical joint ends.

II. Gate Valves

A. General

- 1. Gate Valves shall be manufactured to meet, and/or exceed, all the requirements of ANSI/AWWA C509-01 or ANSI/AWWA C515 Standard for resilient wedge ductile iron gate valves.
- 2. The manufacturer must provide a ten (10) year warranty against defective material and workmanship.

III. Specifications

Valves shall meet the following minimum design criteria:

- 1. Valve body shall be manufactured of ductile iron, and have a working pressure of 250 psi.
- 2. All ferrous components shall be ductile iron, body, wrench nut, stuffing box, and valve wedge.
- 3. The marking "DI" or "ductile iron" shall be cast into the valve body along with "250W" or "250 psi".

4. The valve wedge shall be ductile iron, encapsulated with nitrile rubber. The wedge shall be symmetrical and seal equally well with flow in either direction.
5. Valves shall have a fusion-bonded epoxy coating inside and out for maximum corrosion resistance, complying with ANSI/AWWA C550 Standard, applied electrostatically prior to assembly.
6. The valve shall have a smooth full diameter waterway with no recesses to trap debris or obstruct flow.
7. Valve stem shall be high strength corrosion resistant bronze. Stem shall be sealed by three o-rings. The top two o-rings shall be replaceable with valve fully open and while subject to full rated working pressure. O-ring set in a cartridge shall not be allowed.
8. Sealing gaskets shall be pressure energized o-rings.
9. Torque minimizing thrust washers located with one (1) above, and one (1) below the thrust collar, to assure trouble free operation of the valve.
10. Valves shall conform to (U.L.) Underwriters Laboratories, and (F.M) Factory Mutual Research Corporation. Valves shall be NSF standard G1 certified.
11. Bolting materials shall develop the physical strength requirements of ASTM A307 Standard, and may have either regular square or hexagonal heads with dimensions conforming to ANSI B18.2.1 Standard. Metric size socket head cap screws are not allowed. Bolts and nuts securing valve bonnets, stems and operating nuts shall be stainless steel.
12. Operating nut shall have four flats at stem connection to assure even input torque to the stem.
13. Flanged valves shall be O S & Y 125 lb. flanges. The manufacturer shall be able to furnish 250 lb. flanges upon request.

IV. Tapping Sleeves

- A. Mechanical joint tapping sleeves meet the following design criteria:
 1. Sleeves shall be the split type mechanical joint with side and end gaskets, manufactured of ductile iron.
 2. Sleeves shall conform to all applicable requirements of ANSI/AWWA C110 A21.10; ANSI/AWWA C111 A21.11; and ANSI B16.11 Class 125 flange.
 3. When sleeves are to be installed on pipe that is larger than 12", field verification by the contractor of the existing pipe's outside diameter shall be required before ordering said sleeve.
 4. All tapping sleeves shall be iron, mechanical joint tapping sleeves unless otherwise approved by the Town's Superintendent. Stainless steel tapping sleeves will be considered where the existing main is PVC pipe, or cast iron of irregular outside diameter.

V. Fire Hydrants

A. General

1. Fire hydrants shall be the dry-barrel type manufactured to meet, and/or exceed, all the requirements of ANSI/AWWA C502-94 Standard.

2. Drainage capability must be provided for fire hydrant weep holes. If areas of high water table are encountered, the contractor shall contact the Director of Public Works or the Town Engineer to relocate the hydrant to prevent possible cross contamination.
3. Fire hydrants shall be painted in accordance with standards established in the Materials Specifications document.
4. The manufacturer must provide a ten (10) year warranty against defective material and workmanship.
5. Fire hydrants shall be located as follows:
 - a. At street intersections and at intermediate locations where deemed necessary by the Town Director of Public Works and/or the State Fire Marshall's Office after consultation with the Fire Chief.
 - b. At the end of all cul-de-sacs in a location determined by the Town Superintendent.
 - c. No closer than fifty (50) feet and no further away than one hundred (100) feet of any standpipe or sprinkler system fire department connections.
 - d. As required by the following schedule according to use group. The distance shall be measured along an unobstructed path around the structure, to the most remote part of the structure that the hydrant will serve.

Industrial Buildings	250 feet
School Buildings	300 feet
Commercial, Church and Office Buildings	350 feet
Apartments, Multifamily, and Town Houses	250 feet
Single-Family Detached and Two-Family Attached Dwellings	400 feet
 - e. All hydrants shall be a minimum of fifty (50) feet away from any buildings other than single-family detached and two-family attached dwellings unless deemed appropriate by the Town Superintendent.
 - f. In no case shall the distance between fire hydrants, measured along the centerline of accessible streets, be greater than six hundred (600) feet.
6. No landscaping shall be permitted within five (5) feet of a fire hydrant, with the "no landscape" area indicated on the plat.

B. Specifications

Hydrants shall meet the following minimum design criteria:

1. Hydrant shall have a rated working pressure of 200 psi with a test pressure of 400 psi.
2. The main valve closure shall be of the compression type, opening against the pressure and closing with the pressure.
3. Traffic feature to be designed so that the nozzle section of the hydrant can be rotated (by degree) to full 360 circle during field installations, if necessary.
4. The main valve opening shall not be less than 5 ¼" and be designed so that removal of seat, drain valve mechanism, internal rod, and all working parts, can be removed through the top of the hydrant, without disturbing the ground line joint or the nozzle section of the hydrant.

5. The bronze seat shall be threaded into mating threads of bronze for easy field removal.
6. The draining system of the hydrant shall be bronze, and activated by the main stem without the use of auxiliary rods, toggles, pins, etc. The drain mechanism shall be completely closed after no more than three turns of the operating nut in the opening direction, allowing throttling of the hydrant as needed. Provide a minimum of two inside ports and four drain port outlets to the exterior of the hydrant, to insure positive drain when closed. Drain shut-offs shall be by direct compression closure.
7. The operating nut, main stem, coupling, and main valve assembly shall be capable of withstanding input torque of 200 ft/lbs in opening or closing directions.
8. There shall be an internal top housing with triple o-rings to seal operating threads from the waterway and accommodate an antifriction washer.
9. Nozzle sections of the hydrant shall be designed to permit field replacement of damaged threads without special tools, excavation, or disturbing the ground line joint. Bronze nozzles are to be locked into the hydrant barrel with locking lugs, and be sealed by heavy duty O-rings. The operating nut size, as well as hose and pumper threads, shall conform to National Standard Specifications.
10. Hydrants shall conform to (U.L.) Underwriters Laboratories U.L. 246 standards, and (F.M) Factory Mutual Research Corporation.
11. The maximum friction loss through the hydrant shall not exceed 2.8 psi at 1000 gpm through the pumper nozzle. The flow test and certification of this feature shall be conducted by an independent testing laboratory, and be in accordance with ANSI/AWWA C502-94 standard. The records of all tests performed shall be made available to the Town upon request.
12. The standard depth of bury shall be a minimum of 4' to a maximum of 7' without the use of extensions. When the water main is deeper than the standard depth, the use of quarter and eighth bends between the tee at the main and the fire hydrant will be required to bring it to the proper grade.

VI. Installation

A. Valves

1. Valves shall be carefully erected in their respective positions and free from all distortion and strain with stems vertical. The valve box shall be set over the operating nut and shall have its top flush with the final surface. The valve box top section shall overlap the lower section by at least 6 inches.
2. Restraint of valves shall be performed by the Contractor in accordance with the Standard Details, or as specified by the Town Engineer.
3. Where valves occur on the end of the pipeline, a mechanical joint plug shall be placed and secured in the exposed bell before backfilling the trench.
4. The contractor shall backfill and compact under and around valve boxes to ensure no vertical loads are transmitted to the valve operators.

5. All valves shall be installed with Megalug™ retainer gland or approved equal.

B. Fire Hydrants

1. Fire hydrants shall be installed where indicated on the Plans, in accordance with the Standard Details, and set plumb, with bury line at finished grade. The pumper outlet shall be placed facing the street.
2. Bollards shall be installed as shown on plans or as directed by the Town.
3. Every effort shall be made to avoid the use of barrel extensions, and such extensions shall only be used when approved on a case by case basis by the ~~Superintendent~~ **Director of Public Works**.
4. A 6 inch valve shall be provided in the lead of each hydrant. This valve shall be restrained to the main by an anchoring tee or anchoring coupling. Where a hydrant is used to terminate the main, restraint of this valve shall be by means of a dead end anchor, cast around the main.
5. All privately owned hydrants shall have stenciled on the hydrant the word "PRIVATE" to identify the unit as a privately owned hydrant. The stenciling shall be sized and placed to be easily seen from the direction of hydrant access.
6. Hydrants shall be located no more than ten (10) feet from the face of curb and at least ten (10) feet from any entrance or driveway.
7. **Prior to acceptance, hydrants shall be flow tested under Town supervision to assure compliance with the Town of Berryville Construction Standards Manual. The flow report shall be submitted to the Town Director of Public Works for review and approval.**

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Section 5

Sanitary Sewer

I. General

- A. This section includes construction and testing of all sanitary sewer piping. The installation of sanitary sewers will be in accordance with this section of the specifications and applicable standard details.
- B. Utility Locations: Whenever practical, sewer mains shall be located in the center of the street. Water mains shall be located a minimum of three (3) feet from the gutter of the streets with curb and gutter; or three (3) feet within the pavement edge of streets without curb and gutter. A minimum 10 foot horizontal separation (outside to outside), or 6 feet horizontal separation with at least 1.5 foot vertical separation from bottom of water to top of sewer, shall be provided between all water lines and sanitary sewer lines. The water line must rest on a shelf of undisturbed earth to one side of the sewer.

Manholes shall be placed at the intersection of all mains, at all changes in horizontal or vertical alignment, at a maximum of three hundred (300) foot intervals, where pipe size changes occur, and at any other locations as directed by the Town Engineer or Superintendent. Where a temporary or permanent termination of the main is proposed, a manhole shall be provided.

- C. A minimum separation of 50 feet must be maintained between sanitary sewer and any well producing potable water.
- D. A minimum separation of 15 feet must be maintained between sanitary sewer and all existing or proposed buildings.
- E. Sewers shall be extended to beyond the limits of all proposed improvements, prior to final grading and/or street construction.

II. Materials

- A. General – All pipe shall be of the same material and shall be furnished by the same manufacturer. Each pipe length and all fittings shall be clearly marked at intervals of five feet or less with the manufacturer's name or trademark and pipe type.

B. PVC Sewer Pipe

1. The pipe and fittings shall be manufactured in accordance with ANSI/AWWA C900/C905 for Polyvinyl Chloride (PVC) pressure pipe and fittings, utilizing a rubber gasketed joint to provide for expansion and contraction. The pipe shall have a minimum DR ratio of 25, with cast-iron-pipe-equivalent Outside Diameters (ODs).
2. The pipe shall be joined with an integral bell, bell-and-spigot type rubber gasketed joint. Each integral bell joint shall consist of a formed bell complete with a single rubber gasket. Gaskets shall conform to ASTM F-477. All fittings shall utilize gasketed joints.
3. Pipe and fittings shall be homogeneous throughout and free from cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be as uniform as commercially practicable in color, opacity, density, and other physical properties.
4. Manhole connections shall be accomplished by means of an elastomeric gasket to provide flexibility and adequate joint tightness.
5. Manholes shall be placed at the intersection of all mains, at all changes in horizontal direction, and at a maximum of three-hundred (300) foot intervals on straight sections, where pipe size changes occur, and at any other location as so determined by the Town Engineer.

III. Installation

- A. Only proper and suitable tools and appliances for the safe and convenient handling and laying of pipes and fittings shall be used. Pipe and fittings shall be carefully handled and lowered into the trench. Under no circumstances shall any pipe or fittings be dumped or rolled into the trench or be allowed to drop against the pipe or fitting already in the trench. Before being lowered and while suspended, the pipe shall be inspected for defects. Defective, damaged, or unsound pipe will be rejected.
- B. The interior of the pipe shall be thoroughly cleaned of all foreign matter before being lowered into the trench and shall be kept clean during laying operations by means of plugs or other approved methods. The pipe shall not be laid in water or when the trench or weather conditions are unsuitable for such work. When work is not in progress, open ends of pipe and fittings shall be closed securely so that no trench water, earth, or other substances will enter the pipe or fittings.
- C. All pipe being installed shall have no less than 6 inches of bedding under and over the pipe. The stone to be used for bedding shall be VDOT #68 type. The full length of each section of underground pipe shall rest solidly upon the pipe bedding, any defects due to settlement shall be made good by the contractor at his own expense. The ends of pipe shall abut against each other in such a manner that there shall be no shoulder or unevenness on the inside of the main. Bell holes shall be dug sufficiently large to ensure the making of proper joints. Special precautions shall be exercised to prevent any pipe from resting on rock.

- D. Any pipe that has the grade or joint disturbed after laying shall be taken up and re-laid. Any pipe, pipe fittings, or appurtenance found defective after installation shall be replaced.
- E. Except where otherwise necessary in making connections or closures, or as authorized by the Town Engineer, bell-and-spigot pipe shall be laid with bells facing in the direction of laying.
- F. Where pipe cutting is necessary, it shall be done in a neat and workmanlike manner without damage to the pipe. Unless otherwise authorized, cutting shall be done by means of an approved type of mechanical cutter that will leave a smooth end at right angles to the axis of the pipe and not otherwise damage the pipe.
- G. Joints on PVC pipe and fittings shall be made in accordance with the recommendations of the joint manufacturer and as approved by the Director of Public Works.
- H. All transition joints in sewers between similar or dissimilar materials of equal or unequal size shall be made water and gas tight by means of an approved connector or adapter of the compression or mechanical seal type.- Please see Materials Specifications section of this document for approved materials. Couplings of the mechanical seal type shall have tightening clamps or devices made of 304 stainless steel. The compression joint connector or adapter and flexible coupling shall be installed as recommended and specified by the manufacturer and each connector shall bear the manufacturer's name clearly visible when installed.
- I. Pipe excavation shall be kept free from water and no joint shall be made under water. The Contractor shall be careful during backfilling to prevent damage to or disturbing of joints and to protect the watertight integrity of the pipes at all times. There shall be no walking on or working over pipe until backfill is over the pipe. Backfilling shall be in accordance with the standard details and Section 8 of the construction standards. The maximum depth of burial shall be no greater than twenty (20) feet unless approved in writing by the Town of Berryville.
- J. Sheet piling and shoring shall be in accordance with construction methods established in the Associated General Contractors of America Safety Code. The Contractor shall follow this AGC Manual in determining whether or not sheet piling and shoring is required and shall follow the AGC recommended procedure for installation.
- K. Stream Crossings and highway crossings shall be installed as in the Standard Details unless otherwise specified. The crossing shall be made in such a manner to minimize erosion and blockage of the stream flow. Backfill under the rip-rap shall be compacted to ninety percent density. Sanitary sewer entering or crossing

a stream must be constructed of watertight pipe and exhibit zero infiltration when tested in place.

- L. Slope anchors shall be provided on sewers with slopes exceeding twenty percent. Minimum anchorage shall be as follows:
 - 1. Not over 36 feet center-to-center on grades 20% and up to 35%.
 - 2. Not over 24 feet center-to-center on grades 35% and up to 50%.
 - 3. Not over 16 feet center-to-center on grades 50% and over.
- M. ScotchMark Electronic Marker System EMS 1258 or approved equal shall be included with the installation of all sewer force mains. The markers shall respond to a frequency of 122.5 kHz, with placement as follows:
 - 1. 50-foot intervals on force mains.
 - 2. All laterals (pegs placed where lateral leaves right-of-way or easement and enters private property).
 - 3. Any additional location directed by the Town of Berryville.
- N. A six-inch wide magnetized locating ribbon labeled [sewer line buried below] shall be installed above the select backfill.
- O. A #12 gauge wire shall be placed next to all sewer mains, force mains and laterals. This wire must maintain positive continuity at all times.

IV. Final Inspection and Testing

- A. All sewer construction shall be subject to testing and final inspection, including internal television inspection prior to acceptance.
- B. The Contractor shall furnish weirs, stand pipes, pipe plugs, pressure gauges, stop watches, air compressors, hose, and such materials and assistance as required to perform these tests. All acceptance tests shall be conducted by the Contractor in the presence of a utility inspector approved by the Town Superintendent. The Contractor shall schedule all acceptance tests with an approved utility inspector and provide the Town Superintendent at least forty-eight (48) hours notice of the test.
- C. Prior to the final inspection by the Town, the Contractor shall locate and adjust all manholes, valve boxes, etc. to final grade and clean all gravity lines and manholes.
- D. All gravity sewer lines, to include building sewers, shall be tested after backfill using a low-pressure air test in accordance with applicable ASTM specifications. The air test shall be conducted as follows: provide test plugs at each manhole and securely brace. Provide suitable means of determining depth of groundwater level above the inverts immediately before testing. The testing pressure will be increased accordingly but the total pressure including the increased amount of groundwater backpressure at the spring line of the pipe shall not exceed 5.5 psi. Add air slowly to the test section until the internal air pressure, as indicated on the

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gauge, stabilizes at 4 psi or at the increased pressure determined for the correction of the groundwater backpressure. Do not allow personnel in manholes while the test is being performed or when test section is under air pressure. If leakage is indicated at the test plugs, relieve pressure before taking steps to eliminate the leak. When the air pressure is stabilized, disconnect the hose and compressor and allow the pressure to decrease to 3.5 psi, plus correction for groundwater backpressure. Record the time period for the pressure to drop ½ psi. Pipes failing to maintain minimum holding times set forth in the table below will not be accepted.

AIR TEST TABLE
Pipe Size – Diameter

Length	4"——6"	8"	10"	12"	15"	18"	21"	24"	27"
25'	1:53—2:50	3:47	4:43	5:40	7:05	8:30	9:55	11:24	14:25
50'	1:53—2:50	3:47	4:43	5:40	7:05	8:30	9:55	11:24	14:25
75'	1:53—2:50	3:47	4:43	5:40	7:05	8:30	9:55	11:24	14:25
100'	1:53—2:50	3:47	4:43	5:40	7:05	8:30	9:55	11:24	14:25
125'	1:53—2:50	3:47	4:43	5:40	7:05	8:30	10:54	14:15	18:02
150'	1:53—2:50	3:47	4:43	5:40	7:47	11:13	15:16	19:56	25:14
200'	1:53—2:50	3:47	4:43	5:42	8:54	12:49	17:27	22:48	28:51
225'	1:53—2:50	3:47	4:43	6:25	10:01	14:25	19:38	25:38	32:37
250'	1:53—2:50	3:47	4:57	7:08	11:08	16:01	21:49	28:30	36:04
275'	1:53—2:50	3:47	5:26	7:50	12:15	17:37	24:00	31:20	39:40
300'	1:53—2:50	3:48	5:56	8:33	13:21	19:41	26:11	34:11	43:16
325'	1:53—2:50	4:07	6:26	9:15	14:28	20:50	28:21	37:02	46:52
350'	1:53—2:50	4:26	6:55	9:58	15:35	22:26	30:32	39:53	50:30
375'	1:53—2:50	4:45	7:25	10:41	16:42	24:02	32:43	42:44	54:05
400'	1:53—2:50	5:04	7:54	11:24	17:48	25:38	34:54	45:35	57:42

Minimum holding time in minutes and seconds by size and length of pipe.

Pressure drop from 4.0 psi to 3.5 psi (test pressure shall be increased by amount of groundwater backpressure at springline of pipe, but shall not exceed 5.5 psi).

- E. Should the test show displacement, damage or leakage in excess of the allowable amount, the Contractor shall repair the displacement and damage and eliminate the leakage. He shall retest until the specified conditions are met to the satisfaction of the Town Superintendent.
- F. All gravity sewer lines (not including building sewer) shall be internally inspected by closed circuit television camera prior to acceptance. All deficiencies noted during the inspection shall be corrected. Such inspection shall be made by the Town, after sewer has been fully backfilled and completion of associated roadway sub-grade construction. The cost of this inspection will be borne by the project's owner, and will be billed by the Town, pursuant to the current schedule of fees. Requests for such inspection shall only be made after the system is fully cleaned. Inspections will be scheduled within ten business days of receipt of a valid

request. Should the Town be unable to perform the inspection within this period, then an approved third party may be contracted by the project's owner to conduct the work. A follow-up inspection will be made eleven (11) months following the initial inspection. Any required repairs shall be made at project developer's expense and prior to release of any Maintenance Bond. An additional twelve (12) month Maintenance bond may be required at the discretion of the Director of Public Works.

- G. Building sewers shall provide a standard cleanout within five (5) feet of building exit to allow for internal inspection by closed circuit camera by Town personnel prior to being given a Certificate of Occupancy. Any required repair shall be performed by project owner prior to being granted a Certificate of Occupancy. Forty-Eight (48) hours notice is required for the inspection. Line must be cleaned by project owner prior to inspection. The cost of the inspection to be covered by the project owner. Should Town personnel be unable to inspect the line due to improper preparation by owner or repairs are required, additional fees will be charged.
- H. All manholes shall be tested for water tightness by vacuum testing after the manhole rim has been installed to final grade and prior to final acceptance.
- I. Vacuum tests shall be conducted in accordance with ASTM C1244. Stubouts, manhole boots and pipe plugs shall be secured to prevent movement while the vacuum is drawn. Vacuum equipment shall be approved by the Town Superintendent prior to its use. A measured vacuum of 10 inches (10") of mercury shall be established in the manhole. The time for the vacuum to drop to nine inches (9") of mercury shall be recorded. The following are the minimum allowable test times for manhole acceptance at the specified vacuum drop:

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Depth of Manhole (feet)	Time (seconds)								
	Manhole Diameter (inches)								
	30	33	36	42	48	54	60	66	72
8	11	12	14	17	20	23	25	29	33
10	14	15	18	21	25	29	33	36	41
12	17	18	21	25	30	35	39	43	49
14	20	21	25	30	35	41	48	51	57
16	22	24	29	34	40	45	52	58	67
18	25	27	32	38	45	52	59	65	73
20	28	30	35	42	50	53	65	72	81
22*	31	33	39	48	55	64	72	79	89
24*	33	38	42	51	59	64	78	87	97
26*	36	39	46	55	64	75	85	94	105
28*	39	42	49	59	69	81	91	101	113
30*	42	45	53	63	74	87	98	108	121

*requires written approval by the Town of Berryville

- J. If a manhole joint mastic is completely pulled out during the vacuum test, the manhole shall be disassembled and the mastic repaired.
- K. Manholes that fail the vacuum test shall be repaired and the test and repairs shall be repeated until the manhole passes the test.

V. Gravity Sewer Laterals

- A. In new construction, wyes shall be used to connect to lateral main.
- B. When connecting to existing lines, an approved saddle and stainless bands shall be used.
- C. Connections to existing manholes must be made by core drilling. The connection between pipe and manhole will be with an approved watertight boot.
- D. A cleanout must be installed at locations determined by site plan and current Town standards.
- E. Pipe shall be DR25 as listed on the materials listing sheet.
- F. Refer to Standard Detail #1 for bedding requirements.
- G. Location markers must be installed at the end of each lateral.
- H. Connection at main will be inspected prior to back-filling.
- I. Lateral connections greater than half the diameter of the main will require approval from the Director of Public Works or the Town Engineer. Installation of a manhole may be required for laterals larger than half the main line diameter.
- J. No gravity connection will be made to a force main.

Section 6

Sanitary Sewer Manholes

I. General

- A. This section includes the furnishing of all plant labor, equipment, appliances, and materials and the performance of all operations in connection with the construction of manholes, in strict accordance with this section of specifications and the applicable Standard Details.
- B. All manholes shall be precast concrete unless otherwise noted on the plans and approved by the Town. Any manhole being installed within one thousand (1,000) feet of the discharge from a pressure sewer main or existing manhole having a pressure sewer main installed from a pump station designed for more than 100 gpm shall be lined with a high density Poly Ethylene (HDPE) sheets to protect the concrete from hydrogen sulfide and other sewer gasses which will cause the concrete to deteriorate. Where pressure sewer is being connected to existing gravity collection system, manholes within 1000 feet of the connection shall be protected by lining with a high alumina cement mortar (Strong Seal™ or approved equal).
- C. Applicable Standards
 - 1. American Society for Testing Materials ASTM) C478, D1752
 - 2. Federal Specification QQ-I-652 for Gray Iron Castings
 - 3. Corps of Engineers CRD-588

II. Precast Base

- A. Precast Base: Precast base sections shall be installed on a firm stabilized foundation prepared similarly to that required for the proper installation of the adjacent pipeline, as described elsewhere in the specifications. Precast base sections may be supplied by the manufacturer with precast inverts or the Contractor may cast the inverts in the field. Inverts shall be smooth and accurately shaped to a semicircular bottom conforming to the inside of the adjacent sewer sections. Changes in direction of the sewer and entering branches shall have a circular curve of as large a radius as the manhole will permit, as shown in the Standard Details. The invert channel's depth is to be at least 0.7 times the diameter of the pipe. Manhole base shall be integrally cast with walls.

III. Precast Sections

- A. Precast manhole sections shall be manufactured in accordance with current ASTM Standard C478. Joints of the manhole sections shall be formed entirely of concrete, employing a round rubber gasket, and when assembled, shall be self-centering and make uniform watertight joints. Except for those surfaces within the gasket groove, all inside surfaces of the bell or outside surfaces of the spigot, or

both, on which the rubber gasket may bear during the closure of the joint and at any degree of partial closure, shall be parallel within 1 degree and have an angle of not more than 2 degrees with the longitudinal axis of the pipe. In joints formed entirely of concrete, the distance from either side of the gasket to the end of the bell or spigot shall be not less than 3/4 inch. The gasket spaces between the bell and spigot shall be so shaped as to provide either grooves or shoulders that will prevent the gasket from disengaging from its compression surface or being blown out by hydrostatic pressures. The gasket shall be the sole element utilized in sealing the joint from either internal or external hydrostatic pressure.

IV. Invert Channels

- A. Invert channels shall be smooth and semicircular in shape, conforming to the inside of the adjacent sewer section. Changes in direction of flow shall be made with a smooth curve of as large a radius as the size of the manhole will permit.
- B. Changes in size, direction and grade of the channels shall be made gradually and evenly. The invert channels may be precast or; may be built up with Portland cement grout and mortar (1 part cement to 2 parts sand); or may be formed with sewer pipe laid through the manhole and breaking out the top half after the surrounding concrete has hardened. The bench of the manhole outside the channels shall be smooth and shall slope toward the channels at 1 inch per foot minimum. The invert channel is to be at least 0.7 times the diameter of the pipe depth.

V. Drop Connections

- A. Designs shall minimize the use of drop connections, favoring increased slope and covers on main where practical. Drop connections may be approved where influent main is to be at least 4 feet above effluent main. Outside drop connections are typically employed. Inside drop connections may be approved on a case by case basis. Where inside drop connections are approved, particular care must be taken to ensure adequate foundation for influent line.

VI. Gradient Across Manholes

- A. At a manhole, design shall provide 0.2 foot, to a maximum of 0.5 foot, of difference between invert elevations of influent and effluent mains of like diameters. A minimum difference of 0.1 foot will be permitted where 0.2 foot cannot be practically attained. Where a service or smaller main flows into a manhole, its crown shall be no lower than that of the effluent main.

VII. Watertight Work Required

- A. Manholes shall be completely watertight. All leaks shall be repaired immediately with a non-shrink material, or the entire work removed and rebuilt. Groundwater must be kept below all parts of the masonry or concrete foundations and walls until the mortar and concrete has obtained an adequate set.

VIII. Frames and Covers

- A. Manhole frames and covers shall be manufactured true to pattern. Component parts shall fit together in a satisfactory manner. Castings shall be smooth and well cleaned by shotblasting. They shall be manufactured from gray cast iron, free from cracks, holes and cold shuts, and conforming to ASTM-A-48 Class 35B gray iron. For consistency, the Town has adopted standard dimensions, which are shown in the Standard Details.
- B. Covers shall have the words "SANITARY SEWER" cast in them.
- C. Watertight manhole covers shall be required when the manhole top is below the elevation of the 100-year flood.
- D. All manholes, except those outfitted with watertight covers, shall be fitted with plastic inserts to eliminate the entrance of surface water.

IX. Manhole Steps

- A. Manhole steps shall be made of plastic- or rubber-covered steel and shall conform to the requirements of ASTM C478.

X. Connecting to Existing Manholes

- A. When sewer line construction starts at an existing manhole, the sewer line shall be securely plugged, watertight, in a manner satisfactory to the inspector, as soon as the pipeline stub has been installed in the manhole. This plug shall be maintained in a watertight condition throughout the construction of the new sewer system until the system has been completed and the Contractor has been instructed by the Town to place the system in operation. The sewer shall be plugged in such a manner that the plug can be removed for pressure testing of the sewer. When the pressure tests have been completed, the plug shall be replaced and maintained as set forth above until the new sewer line is placed in service.

XI. Appurtenances

- A. Flexible gaskets for pipe connection to manholes shall be PSX™ or Press-Boot™ by Press-Seal Gasket Corporation, or KOR-N-SEAL by NPC Inc., or approved equal.
- B. Jointing mastic shall be an elastic, water-resistant formulation of plastic bituminous materials and inert fillers so combined that, when applied to a vertical metal surface and heated to 120 degrees F, the jointing mastic will neither slump nor lose plasticity. When applied directly from the container without further fixing, the jointing mastic shall provide even, adherent coating within the temperature range of 20 degrees to 100 degrees F.
- C. Asphalt-based waterproof coating for exteriors of manholes shall be mineral-filled, solvent type meeting all requirements of MIL-C-82052.

- D. Quick-setting, non-shrink grout shall conform to all requirements of Corps of Engineers CRD-588 (Octocrete, Speedcrete, or equal).
- E. Sanitary sewer vents shall be provided where continuous watertight sections are greater than 1,000 feet in length.

XII. Protective Ring of Asphalt

At the time base pavement is laid on a street, if the final coat of asphalt is not to be applied at that time, a ring of asphalt must be placed around each sanitary sewer manhole to avoid damaging vehicles and snowplows. This protective ring of asphalt must be ramped around the manhole to permit a snowplow to travel over it without removing the manhole frame and cover from the structure. In the event that settlement occurs in any base pavement around manholes, remedial measures shall be taken to restore the pavement prior to final acceptance of the sanitary sewer and the street.

Section 7

Erosion and Sedimentation Control

I. General

- A. The work in this section shall include, but is not limited to, construction and maintenance of berms and dikes, temporary diversion barriers, sediment traps, siltation ponds, temporary vegetation covers, and other measures to prevent and control erosion and sedimentation.
- B. Plans submitted for approval shall conform with applicable Town and State Erosion and Sedimentation laws and regulations. In accordance with the Town of Berryville Erosion and Sedimentation Control Ordinance, the Lord Fairfax Soil and Water Conservation District is the plan-approving authority in the Berryville Area.
- C. All work performed in the Berryville Area shall conform with the provisions of the Town of Berryville Erosion and Sedimentation Control Ordinance, the ~~State~~ **Commonwealth** of Virginia Erosion and Sedimentation Control Handbook, and approved plans.

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Section 8

Excavation and Backfill

I. Excavation

A. General

The trench excavation shall be of sufficient size to permit the work to be properly performed in the manner specified. All work shall meet OSHA regulations. The width of trenches shall be such as to provide adequate space for workmen to place and join the pipe properly and in accordance with these specifications, but shall be kept to a minimum. Unless otherwise approved by the Engineer, the clear width of the trench at the level of the top of the pipe shall be related to the outside diameter (O.D.) of the pipe barrel as follows:

Pipe Size Inches	Trench Width Inches
less than 4"	24
4"- 12"	I.D. + 18
Larger than 12"	I.D. + 24

B. Earth Trench Excavation

1. The term "earth" as used herein shall include all material not requiring blasting, barring, or wedging for its removal from its original beds and specifically excludes all ledge or bedrock, boulders, or masonry larger than 1 (one) cubic yard in volume.
2. Material in the bottom of the trench deemed unsuitable by the Engineer shall be removed and replaced with material as hereinafter specified. Depth and width of removal shall be as directed by the Engineer. Excavation shall be performed in the immediate vicinity of adjacent and contiguous facilities by means that will not damage the facilities. Damage caused to existing facilities by the Contractor's operations shall be repaired at no expense to the Town.
3. The bottom of all pipe trenches shall be carefully graded and aligned so that the barrel of the pipe will have bearing for its full length. Where the nature of the soil is such that this cannot be readily accomplished, granular material shall be placed in the bottom of the trench and shaped to provide a continuous, firm bearing for the pipe barrel. Various laying conditions are shown on the Standard Details.
4. Trench excavation shall proceed no more than 75 feet in advance of the placing of backfill unless otherwise authorized by the Engineer. The Engineer may require backfilling and subsequent re-excavation on trenches left open an unreasonable amount of time in advance of laying of pipe, at no expense to the Town. Trenches left open overnight, or during periods when the

Contractor's forces are not present, shall be so protected or enclosed and marked as to cause no danger to the public or others.

5. Sides of trenches in improved public right-of-ways and adjacent to other structures shall be practically plumb. Where permitted by the Town, sides of trenches in other areas may be sloped from a point 1 foot above the top of the pipe to grade. Such slopes shall be at no additional cost to the Town. Slopes shall be such as will not allow displacement of material or danger to personnel.
 6. Work performed in county or state highways shall be in accordance with Section 10 of these Specifications, as shown or specified herein, and as directed.
- C. Rock Excavation
1. Rock shall be excavated, within the boundary lines and grades shown on the plans, or given by the Engineer, and shall be removed and disposed of as directed by the Engineer.
 2. The term "rock" as used herein shall include all material requiring blasting, barring, or wedging for its removal from its original bed
 3. For excavations in which pipe will be laid, the rock shall be excavated to a depth of 12 inches below the lower outside surface of the pipe barrel or bell and filled in to the proper grade with selected fill material properly graded and compacted to provide uniform support for the barrel of the pipe. The furnishing, placing, compacting, and shaping of the selected fill material shall be included as part of the rock excavation and no extra payment will be made therefor. Vertical limits for rock excavation shall be as specified hereinbefore.
 4. For structures, the rock shall be excavated only to the bottom of the structure.
 5. For pre-cast structures, a minimum of 12" bedding is required.
 6. Where applicable, other requirements of this section, "Earth Trench Excavation," shall be followed.
- D. Blasting
1. Blasting shall be performed by qualified personnel holding the required license issued by the Commonwealth of Virginia Fire Marshalls Office.
 2. A pre-blast survey shall be made available to all property owners whose structures are within three-hundred (300) feet of the blast zone. Notification of the property owners is the responsibility of the developer. A minimum of 48-hour notice shall be given.
 3. The Town Planning office shall be notified 48 hours prior to the commencement of blasting.
 4. Blasting shall be performed as directed or approved as to number, length, placement, and direction, and loading of holes. The charges used shall not make the excavation unduly large or irregular, nor injure masonry or existing structures at the site or in the vicinity thereof. Each blast shall be covered with heavy timber or steel mats. Equipment used for drilling or holes shall have a positive means of dust control, subject to the Engineer's approval.

5. Whenever the Engineer determines the further blasting may injure or damage adjacent rock, masonry, or other structures, blasting shall be discontinued. In such case, the remaining rock shall be excavated by boring, wedging, or other approved method.
6. Blasting shall not be permitted within 25 feet of pipes or structures where sewers, gas, water, steam, or other utility ducts or lines, basin connections, or other structures have been exposed during excavation, such structure shall be adequately protected from damage before proceeding with the blasting. Any structure, pipeline, or conduit damaged by blasting shall be promptly repaired at no cost to the Town. Additional buffer distance may be required for blasting due to site conditions and type of pipe in ground. Inspection by the Public Works Director is required to determine blasting setbacks. Forty-eight (48) hours notice is required for the inspection.
7. Blasting shall not be carried on within 300 feet of any radio transmitter or radio frequency emission equipment such as high-frequency welders. Blasting caps shall be kept in tightly closed, all-metal cans when in the vicinity of such equipment.
8. Explosives
 - a. A sufficient quantity of explosives shall be kept on the site to avoid delay to the work, but at no time shall there be a quantity in excess of that which will be required for use within the following 12 hours. Such explosives shall be stored, handled, and used in conformity with all state and local laws, ordinances, and regulations governing the storage and use of explosives. The Contractor shall take out permits and execute a bond therefor, as required by the ordinances of the jurisdiction in which the work is being done, relating to permits and bonds for blasting.
 - b. The magazine keeper shall keep an accurate daily record and account for each piece of explosive, detonator, and equipment from the time of delivery at the magazine until used or removed from the site. In the event of loss or misplacement of blasting materials, the Contractor shall immediately notify the Engineer and local authorities having jurisdiction in such matters.

E. Unsuitable Material

In case the materials encountered at the elevations specified are not suitable, or in case it is found desirable or necessary to go to an additional depth, the excavation shall be carried to such additional depth as the Engineer may direct in writing. The Contractor shall refill such excavated space with either Class B concrete or sand, gravel, or other selected fill material, as ordered. Additional depth of excavation so ordered, and concrete or selected fill materials ordered for filling such additional excavation, will be paid for under the appropriate unit price items.

F. Unauthorized Excavation

Wherever the excavation is carried beyond or below the lines and grades given by the Engineer, except as specified herein, all such excavated space shall be refilled with such material and in such manner as may be directed in order to ensure the

stability of the various structures. Beneath all structures, space excavated without authority shall be refilled by the Contractor at his own expense, with Class B concrete or selected fill materials, as ordered by the Engineer.

G. Disposal of Material

Topsoil suitable for final grading shall be stored on the site separately from other excavated material. Other surplus excavated material, in excess of that required for backfilling around structures and in trenches, and for constructing fills and embankments as shown on the plans, shall be removed by the Contractor.

H. Shoring and Sheeting

1. All excavations shall be properly shored, sheeted, and braced to furnish safe working conditions and to prevent damage, accidents, and cave-ins. Such sheeting, shoring, and bracing shall be placed so as not to interfere with the construction work and shall be entirely independent of all footings and structures. If the Engineer is of the opinion, at any point, that the sheeting or supports furnished are inadequate or unsuited for the purpose, he may order additional sheeting and supports to be installed. Whether so ordered by the Engineer or not, sufficient sheeting or supports shall be installed to protect the work from any damage and to prevent damage to new or existing structures or property.
2. In general, the sheeting and bracing shall be removed, as the excavation is refilled, and in such a manner as to avoid the caving-in of the bank or disturbance to adjacent areas or structures. The voids left by the withdrawal of the sheeting shall be carefully filled by jetting, ramming, or otherwise, as directed. Permission of the Engineer shall be obtained before the removal of any shoring, sheeting, or bracing.
3. Such permission by the Engineer shall not relieve the Contractor of the responsibility for injury to structures or to other property or persons from failure to leave such sheeting and bracing in place.
4. The method of making excavation below groundwater level shall be submitted, in detail, to the Engineer and shall receive his approval before the work is started.

I. Sheeting Left in Place

1. The Engineer may order, in writing, any or all wood or steel sheeting or bracing to be left in place for the purpose of preventing injury to the structures, or to other property or persons, whether such sheeting or bracing was shown on the plans or placed at his direction, or otherwise. If left in place, such sheeting shall be cut off at the elevation ordered, but in general, such cutoffs shall be at least 18 inches below the final ground surface. Bracing remaining in place shall be driven up tight.
2. The right of the Engineer to order sheeting and bracing left in place shall not be construed as creating any obligation on his part to issue such orders.

J. Removal of Water

1. All excavated areas shall be kept dry. No water shall be allowed to rise over or to come in contact with masonry placed during construction until the concrete and mortar has attained a set satisfactory to the Engineer and, in any event, no sooner than 12 hours after placing the masonry. Water pumped, drained, or otherwise removed from the work hereunder shall be disposed of in a suitable manner without damage to adjacent properties, to other work under construction, or to the street pavement. Water shall not be discharged onto streets without adequate protection of the surface at the point of discharge. No water shall be discharged into sanitary sewers and no water containing settleable solids shall be discharged into storm sewers.
2. Any and all damage caused by dewatering the work shall be promptly repaired by the Contractor.

II. Backfilling

A. General

1. All excavations shall be backfilled to the original surface of the ground or to such other grades as may be shown or directed. Before depositing fills, the Contractor shall remove all vegetative matter, mud, muck and otherwise unsuitable soils from the surfaces upon which fill materials are to be placed and fill irregularities and cavities.
2. Backfilling and tamping specifications shall assure, at a minimum, that:
 - a. Trenches are carefully backfilled with excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand and gravel, soft shale, or other approved material, free from large clods of earth or stones larger than 1 inch in diameter, deposited in 6-inch layers, and thoroughly and carefully tamped until the pipe has a cover of not less than 1 foot.
 - b. The remainder of the backfill is placed in the trench in layers not exceeding 1 foot and thoroughly tamped. No stone or rock larger than 5 inches in its greatest dimension shall be used in backfilling.
 - c. Trenches in public roadways shall be excavated, backfilled and compacted in accordance with the requirements of the Virginia Department of Highways and Transportation's Road and Bridge Specifications or other criteria approved by the Department.

B. Backfilling Around Structures and Conduits

1. The backfilling around structures and conduits shall be carefully done by hand and tamped, with suitable tools of approved weight, to the top of such structures and conduits. The backfilling around pipes shall be carefully done by hand and tamped with suitable tools of approved weight. This material shall be approximately 6 inches thick, tamped and compacted in place.
2. After the backfill has been made around the structures, conduits, and pipes as specified above, the remainder of the trench may be backfilled by machine, but the work shall be done in such a way as to prevent dropping of material directly on top of the structure, conduit, or pipe through any great vertical

distance. Material shall be deposited in horizontal layers. In no case shall backfilling material from a bucket be allowed to fall directly on a structure or pipe, and in all cases the bucket must be lowered so that the shock of the falling material will not cause damage.

3. When using various Laying Conditions, Type 1 through 5, to backfill ductile iron pipe, the methods used in backfilling and bedding the pipe shall be in strict conformance to AWWA C 150-76 (ANSI A21.50i), the details shown in the Standard Details or on the plans. The selection of the backfilling method shall be predicated upon the actual trench conditions encountered and shall be determined by the Engineer.
4. Where structures such as pipelines, walks, railroad tracks, and roadways are to be constructed or replaced later on backfilled areas, the Engineer may order the entire backfill in such areas placed in layers, rolled, rammed, or otherwise thoroughly compacted to a minimum of 95 percent density compaction to prevent after-settlement.

C. Selected Fill Material

1. Selected fill material shall consist of bank-run sand and gravel, or similar material that is approved by the Engineer as suitable for the purpose intended. Selected fill shall be placed in the manner specified under "Backfilling" or as ordered by the Engineer.
2. Granular materials used in installing pipe with Laying Condition Types 4 and 5 shall not exceed 3/4 inch in diameter and shall be either crushed rock or selected gravel. Graduations of materials used for this Laying Condition shall be approved by the Engineer.
3. In a rock trench, at least 6 inches of selected fill material shall be placed for pipe bedding.
4. All excavation done in roadways and along shoulders shall be backfilled with 21B stone and compacted to VDOT specifications.

Section 9

Top Soiling and Seeding

I. General

- A. Work included: The work covered by this section consists of furnishing all labor, material, and equipment and the performing of all operations necessary or required to placed topsoil, final grade, fertilize, lime, seed, and mulch all graded and cleared areas, including those areas disturbed in the course of construction, in accordance with the specifications.
- B. Quality assurance: Seed shall conform to the formula contained herein and be certified. The supplier shall furnish an affidavit stating that materials used conform to the specification requirements and submit state certification labels to the Engineer.

II. Products

- A. Topsoil
 - 1. Shall be furnished from the on-site stockpile or from some other approved source.
 - 2. It shall be natural, friable, agricultural soil, possessing characteristics representative of soils in the vicinity that will sustain vigorous plant growth, free from stones larger than two (2) inches in diameter, roots, toxic substances and other foreign matter which might be detrimental to plant growth. Topsoil shall meet the requirements of the VDOT specifications, ~~and latest addenda as amended.~~
- B. Lime
 - 1. Shall conform to the standards of the Association of Official Agricultural Chemists.
 - 2. Ground agricultural limestone shall contain not less than 55% of total carbonates and shall be ground to such a fineness that at least 90% will pass a No. 10 mesh screen and at least 50% will pass a No. 100 mesh screen. Coarser material will be accepted provided that the specified rates of application are increased proportionately on the basis of quantities passing the 100 mesh screen. No additional payment will be made for the increased quantity.
- C. Fertilizer
 - 1. Shall be a commercial type-10-10-10 (nitrogen-phosphoric acid-potash) and shall be uniform in composition, free-flowing and suitable for application with approved standard equipment.
 - 2. The fertilizer shall conform to applicable State fertilizer laws and shall be delivered to the site in bags or other containers each fully labeled and bearing the name, trademark, and warranty of the producer.

D. Seed

1. Shall be labeled or marked per accepted horticulture practice and shall comply with all current State and Federal regulations, and shall be furnished in sealed standard containers. Seed which as become wet, moldy or otherwise damaged in transit or storage will not be acceptable.
2. Seed and mixes shall be furnished with a certification from the seed company stating type of seed; percentages of mixture purity, germination, and weed seed.
3. The seed mix to be applied shall have the following minimum requirements:

	Purity	Germinator	Weed Seed	Lbs. Per 1,000 Sq. Feet
Kentucky-31	90	80	0.75	3.0
Merion or Common				
Kentucky Bluegrass	95	85	0.75	1.0

E. Mulch – Straw, Hay or Wood Cellulose

1. Straw and hay shall be free from noxious weeds, grain seeds, mold or other objectionable material and shall be in an air-dry condition and suitable for placing with mulch blower equipment. Asphalt binder shall be per AASHTO M-140, Grade SS-1. Wood cellulose shall be natural wood mulch, without toxic substances and foreign matter, packaged in air-dry containers capable of application with power spray equipment, and shall have a maximum pH of 9.0 in distilled water.

III. Execution

A. Preparation

1. The ground surface shall be cleared of stones, roots, cable, wire, grade stakes and any other material that might hinder proper grading and tillage, be harmful to plant growth, or hinder subsequent mowing and other maintenance operations. Sub-grades shall be loosened by dicing to a depth of not less than three (3) inches so that the loosened surface will readily bond with the topsoil.
2. Areas to be planted shall be graded as shown on the drawings and all surfaces shall be left in an even and properly compacted condition to prevent the formation of depressions where water will stand.

B. Application

1. Topsoil, Lime and Fertilizer
 - a. Topsoil shall be specified, spread to a compacted depth of four inches for areas to be seeded, shall be raked to a smooth uniform surface and compacted with a lawn rolled weighting not less than 90 pounds per foot of roller width. Any bumps or depressions which develop shall be leveled or filled, as required, and rolled until a satisfactory grade is obtained.

- b. Lime and fertilizer shall be as specified, applied at the rate of 50 pounds per 1,000 square feet of lime, and 20 pounds per 1,000 square feet for fertilizer. Not more than two (2) days afterward, the area shall be raked or harrowed in such a manner as to well work well the lime and fertilizer into the top two (2) inches of soil, which should then be thoroughly wetted.
- 2. Seeding and Mulching
 - a. All seeding shall be accomplished by Hydroseeding methods. Hydroseeding shall be done by a three-step method using the application rates previously specified. The three steps shall be as follows:
 - Step 1 – Apply lime and fertilizer.
 - Step 2 – Apply seed mixture.
 - Step 3 – Apply hydro mulch.Note: All mulching shall be accomplished by means of hydromulching except where slopes are steep and required tied down mulch, a straw or hay mulch as specified herein shall be used. However, under no circumstances shall straw or hay mulch be applied to the berms forming the detention ponds or the aeration lagoons. After slopes have stabilized, the contractor shall gather and removed from the site all straw and/or hay mulch.
 - b. Straw or hay mulching shall be spread uniformly over seeded areas at the rate of 115 pounds per 1,000 square feet. It shall be anchored by the specified asphalt binder as follows:
 - 1. Binder applied as separate operation at 8 gallons per 1,000 square feet on slopes flatter than 3 to 1; 16 gallons per 1,000 square feet on slopes 3 to 1 and steeper.
 - 2. Binder applied simultaneously with straw or hay at 1.5 gallons per square yard as directed.
 - c. The Contractor shall take all necessary precautions to prevent asphalt binder from marking or defecting structures, pavements, utilities, or plant growth. Any disfigurement shall be repaired at the Contractor's expense.
 - d. Wood cellulose mulch, as specified, shall be applied evenly at the rate of 50 pounds per 1,000 square feet.
- C. Seeding Seasons
 - 1. The normal seasonal dates for seeding sodding / sodding shall be:
 - a. Spring Season – April 15 to May 20
 - b. Fall Season – August 15 to September 15
 - 2. Seeding at other times than specified will be allowed only upon written approval. Seeding shall not be done during windy weather, when the ground is excessively wet, frozen or otherwise untillable.
 - 3. Temporary seeding, as required for erosion control, is to be applied according to the specifications of the local Soil Conservation District.
- D. Seed Establishment Period
 - 1. The Contractor shall protect, provide proper care and maintain the seeded areas for at least 90 days after seeding is complete.

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2. The Contractor shall repair any damage to seeded areas without additional compensation and shall provide a uniform acceptable stand of grass.
3. The Contractor shall seed as soon as a unit or portion of the project is satisfactorily completed.
4. Maintenance shall consist of repair and replacement of eroded areas, watering, re-fertilizing, re-liming, re-seeding and re-mulching as necessary to provide an even fixed growth of grass.
5. The Contractor will provide protection against traffic and shall erect the necessary barricades and warning signs immediately after planting is completed.

Section 10

Work on State Highways

I. General

- A. The Virginia Department of Transportation (VDOT) maintains primary roadways (Business Route 7 and US 340) within the Town of Berryville Corporate Limits.**
- B. The Contractor shall assume all responsibility for fulfilling any and all requirements specified herein and under the permit(s) obtained from the ~~Virginia Department of Transportation (VDOT)~~ for work to be performed on state highways.**
- C. All applicable provisions as established by the "Land Use Permit Manual, Commonwealth of Virginia - Department of Highways and Transportation, Richmond, Virginia; 1983," and subsequent revisions thereto, shall apply to this work, including provisions for revocation of permit.**
- D. All work done under this permit within the road right-of-way shall, in all respects including location, alignment, elevation and grade; manner of performing the work; highway crossings; restoration and conditions; etc., be subject to VDOT direction and shall be done to the satisfaction of the Department.**

Work on Town Roadways Streets

II. General

- A. The Town of Berryville maintains public secondary streets within the Corporate Limits.**
- B. The Contractor shall assume all responsibility for fulfilling any and all requirements specified herein and under the permit(s) obtained from the Town of Berryville for work to be performed on Town street rights-of-way.**
- C. All applicable provisions as established by the "Land Use Permit Manual, Commonwealth of Virginia - Department of Highways and Transportation, Richmond, Virginia; 1983," and subsequent revisions thereto, shall apply to this work, including provisions for revocation of permit.**
- D. All work done under this permit within the street right-of-way shall, in all respects including location, alignment, elevation and grade; manner of performing the work; highway crossings; restoration and conditions; etc., be subject to Town of Berryville Department of Public Works direction and shall be done to the satisfaction of the Department.**

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Section 11

As-Built Drawings

I. General

A complete set of as-built drawings and corrected key sheets shall be submitted by the developer or owner responsible for the construction upon completion of construction and at least one week prior to the anticipated occupancy of any building within the project. As-built drawings must be determined by actual field survey and sealed by the responsible surveyor or engineer. The following statement, signed by the responsible surveyor or engineer, shall be on each sheet: "I hereby state, to the best of my knowledge and personal belief, that the work shown on these plans was constructed to the direction and grades shown and are either installed within the Public right-of-way or properly recorded easements dedicated to the Town of Berryville". The as-built drawings shall show all revisions, substitutions, variations, omissions, and discrepancies made or discovered during construction concerning location and depth of utilities, piping, manholes, pumps, and other facilities. Revisions shall be made and shown on all drawing views with actual dimensions established to permanent points. The contractor shall keep daily as-built work plans at the construction site and shall furnish them to the design engineer for as-built drawing. In addition to the set of paper drawings, the developer or owner responsible for the construction must also submit a digital file of the as-built drawings that are in an AutoCad format.

The as-built drawings shall show, but not be limited to, the following:

I. Water Line Construction

- A. Scale accuracy location plans of the line and all installed valves and fittings, such as elbows, tees, crosses and reducers, and all cradle encasements or special construction.
- B. Exact measurements to show positive locations shall be taken from at least two reasonably adjacent and available, fixed and permanent objects, such as fire hydrants, centers of sanitary or storm sewer manhole casting covers, corners or lines extending from buildings, power poles, etc.
- C. Type and sizes of all pipes.

II. Sewer Line Construction

- A. Scale accuracy location of manhole inverts and top casting elevations and numerical notations of the exact elevations of same as determined by field survey after construction. Elevations shall be in datum of Clarke County.

- B. Scale accuracy indication of lengths and grades and direction of lines between manholes and numerical notations of the exact length and grades, as determined after construction.
- C. Scale accuracy location of concrete cradles, encasements or special construction.
- D. Location of house services by measurement from the manhole immediately downgrade.
- E. Type and sizes of all pipes.

III. Wastewater treatment facilities and pumping stations, water pumping stations, all other comparable construction and building structures:

- A. As-built plans and specifications shall accurately indicate all approved deviations from or changes in locations or type of equipment installed and material used.
- B. Accurate listings of the name of the manufacturer of all operating equipment installed, together with model or style numbers, ratings, capacities and other pertinent information shall be provided as part of the record plans on the project.
- C. At least 3 complete sets of operation and maintenance manuals for all operating equipment and all certificates of inspections, warranties and guarantees of equipment, materials and the installation thereof, required by the project specifications which are approved by the Town Director of Utilities, shall be provided as part of the record drawings on the project.

IV. Storm Sewer Construction

- A. Scale accuracy location of structures, providing all invert elevations, distances between structures, elevation of structure tops, and diameter of pipes.

V. Stormwater Management Facilities

- A. Acceptable as-built drawings for stormwater management facilities utilizing an embankment shall contain:
 - 1. A profile of the top of the dam.
 - 2. A cross-section of the emergency spillway at the control section.
 - 3. A profile along the centerline of the emergency spillway.
 - 4. A profile along the centerline of the principal spillway, extending at least 100 feet downstream of the fill.
 - 5. The elevation of the principal spillway crest.
 - 6. The elevation of the principal spillway conduit invert (inlet and outlet).
 - 7. The diameter, length, and type of material for the riser.
 - 8. The diameter, length, and type of material for the conduit.

9. The size and type of anti-vortex and trash rack devices and their elevations in relation to the principal spillway crest.
10. The number, size, and location of the anti-seep collars.
11. The diameter and size of any low-stage orifices or drain pipes.
12. The length, width, and depth or contours of the pool area so that design volume can be verified.
13. A certification statement and seal by a Professional Engineer that the as-built is accurate and complete and that the pond, as constructed, meets the requirements of the standards and specifications for ponds.

When the as-built drawing information differs from the approved construction plans, a design analysis for the existing conditions may be required. After the record drawings are approved in writing by the Department of Public Works and the Town Engineer, a set of reproducible mylar, and two blue line prints **of three drawings and an electronic copy of all drawings in pdf format** shall be submitted. Projects which include water and/or sewer facilities which are located within a VDOT right-of-way will require four additional sets of ~~blue line prints~~ **drawings** for the remain-in-place permit.

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STANDARD SPECIFICATION
SECTION 12
CONSTRUCTION RECORD

WATER & WASTEWATER DISTRIBUTION SYSTEM: _____

	<u>Water</u>	<u>Sewer</u>
 <u>Developer</u>		
Provide 5 copies of preliminary plans to the Planning Department		
Pay appropriate fees		
 <u>Planning Department</u>		
Circulate preliminary plans to:		
Town Engineer		
Public Works Department		
Town Council Water/Sewer Committee		
Other		
 <u>Public Works Department</u>		
Review Plans		
Forward review comments to Planning Department		
 <u>Town Engineer</u>		
Review Plans		
Forward review comments to Planning Department		
 <u>Planning Department</u>		
Forward comments to Developer		
 <u>Developer</u>		
Submit revised plans		
Submit executed agreement		
 <u>Planning Department</u>		
Submit revised plans to:		
Town Engineer		
Public Works Department		
Town Council Water/Sewer Committee		
Approving authority		
Submit plan to following as necessary:		
Virginia State Department of Health		
Department of Environmental Quality		

Planning Department:

Upon submission of plans that meet all applicable requirements and address comments received from reviewing authorities:

Submit plans to approving body

APPROVE FINAL PLANS

Developer

Post off-site performance surety

Post on-site performance surety

Provide agreement recordation fees

Submit construction permit request

Schedule preconstruction conference

Submit off-site easement deeds

Record deeds of easement

Public Works and Planning Department

Conduct preconstruction conference

ISSUE CONSTRUCTION PERMIT

Record agreement

Developer

Record off-site easement deeds

Bring roads and ditches to final grade

Disinfect completed system, flush, and
submit bacteriological samples

Submit capital cost data and

request tentative acceptance in writing

Public Works

Review inspections for tentative acceptance

Require or conduct additional inspections
(charged to Developer)

Developer

Correct operational deficiencies

Public Works

GRANT TENTATIVE ACCEPTANCE

Developer

T.V. sewer lines; submit copy of tape(s) to Town

Correct deficiencies

Public Works/Planning Department

Reduce performance bond

Developer

Pave roads & adjust valves & manholes

Correct remaining deficiencies

Submit construction completion certificate to VDH

Provide paper and digital record drawings

and paper shop drawings

Request final acceptance in writing

Submit letter stating system is paid for in full

Post 10% defect bond + cost of final T.V. inspection

Pay any inspection fees

Public Works/Planning Department

GRANT FINAL ACCEPTANCE

Release performance bond

Inspect for defects (9 months)

Developer

Correct defects

Public Works

Release performance bond and close record

Inspect for defects by T.V. (9 months)

Release defect bond and close record

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Section 13

Utility Inspectors

The Director of Public Works shall maintain a listing of approved utility inspectors.
Inspectors may be contractors or Town of Berryville employees.

The Director of Public Works shall assign the approved utility inspector for each project.

Only inspectors approved by the Director of Public Works may inspect work in the Town of Berryville or its growth areas.

Approved utility inspectors shall perform inspections and submit reports as required by the *Construction Standards and Specifications Manual* and/or the Director of Public works.

All costs incurred by the Town for utility inspection shall be billed to and paid by the landowner or developer. Occupancy of any building within the project will be delayed until the required payments of these costs have been made.

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Section 14

Minimum Standards for Wastewater Pumping Stations

I. Design Criteria

A. General

The purpose of this document is to establish minimum technical and design standards for developers and engineers for the design and acceptance of wastewater pumping stations within the service area of the Town of Berryville. The standards are intended to ensure uniformity and quality of construction for wastewater pumping stations throughout the Town. Any deviation from the standards contained herein shall be subject to the approval of the Town Engineer and Superintendent. Plans and specifications shall be prepared and certified by a professional engineer registered in the Commonwealth of Virginia.

Certain equipment manufacturers have been noted herein for the purposes of establishing standards for the level of quality for materials and workmanship, reliability, ease of maintenance, and minimization of spare parts inventory. Other equipment may be used, but must be pre-approved by the Town Engineer and Superintendent. The pumping station and all appurtenant equipment and materials shall be new and unused.

If the property to be served by a pump station is located within the same drainage area as other undeveloped or underdeveloped land situated within the limits of the Berryville Area, the Town may require an increase or modification in sizing or design of the building, wet well, pumps, mains and/or other associated improvements.

~~All construction plans and specifications for pumping stations must be submitted to the Virginia Department of Environmental Quality (DEQ), Valley Regional Office, for review and approval. A copy of the DEQ's approval must be provided to the Town, prior to final approval by the Town of Berryville. A Certificate to Operate (CTO) for each pump station must be issued prior to its acceptance by the Town of Berryville.~~

After the construction plans and specifications for pumping stations have been completed by the design engineer and received the approval of the Town, the design engineer shall submit to the Virginia Department of Environmental Quality (DEQ), Valley Regional Office a stamped and signed application for a Certificate to Construct certifying the pump station design is in accordance with the Sewage Collection and Treatment Regulations and complies with the reliability requirements as calculated by the DEQ Reliability Requirement Work Sheet. A copy of DEQ's approval and

issuance of the Certificate to Construct must be provided to the Town [prior to final approval by the Town of Berryville.

Upon completion of the construction of the pump station, the design engineer shall inspect the station, review reports by the equipment manufactures field representatives, and request written documentation from the Town that the station is acceptable, the design engineer shall submit to DEQ a stamped and signed application for a Certificate to Operate (CTO). A Certificate to Operate (CTO) for each pump station must be issued prior to acceptance by the Town of Berryville.

B. Design Data

1. The pump station design shall comply with all Virginia Department of Environmental Quality regulations, and Town Standards.
2. Pumps shall be capable of handling the maximum peak hourly flow with one unit out of service. A minimum peak factor of 2.5 is required.

C. Site Requirements

1. **The site of any pumping station, where all equipment is not completely enclosed within a building or if the emergency generator is located outside of the main station structure in its own sound attenuating enclosure, The site of any pumping station that is not completely enclosed within a building shall be protected by a chain link fence at least 6 feet in height. One 3-foot walk-through gate and one 10-foot drive-through gate shall be provided. The grounds within the fenced area shall be covered with a weed barrier and 4 inches of stone (21B) and shall contain no slopes exceeding 15 percent.**
2. Access to the station shall be via a dedicated asphalt or concrete paved road of single lane width. In unusual cases, curbs and gutters may be required by the Town Engineer. In no case shall the profile grade exceed 15 percent.
3. All grounds are to be landscaped or seeded with grass. Slopes requiring mowing shall not exceed 15 percent.
4. The pumping station shall be designed to remain fully operational and accessible during a one-hundred (100) year flood event.
5. The pumping station shall be located within a dedicated easement or fee-simple lot dedicated to the Town of Berryville.
6. All pump station lots shall have screening with a Town-approved evergreen species of trees and/or tall shrubs along the property lines, and other areas as determined by the Town ~~Superintendent~~ **Director of Public Works.**

D. Pumping Station Building

1. The building shall be precast concrete with a faux brick finish (desert sand), have a minimum 8 foot clear ceiling height, 12 foot overall width and 20 foot overall length. The size may be increased or decreased at the discretion of the Town Engineer or Director of Utilities to provide adequate clearance for

equipment operation and maintenance. The building shall have one 6'-0" x 6'-8" fiberglass or aluminum insulated double door with key lock and stainless steel hardware. The building shall have no windows. The interior walls and ceiling to be primed and painted with an alkali resistant primer, and white 100% acrylic industrial enamel finish coat. (Primer: Pittsburgh 6-603, Finish Pittsburgh 90-374 or approved equal.) The roof shall be shingled with thirty year asphalt shingles and have a minimum 5/12 pitch. The roof pitch shall conform to other structures in the area.

2. Key locksets to the Town of Berryville's existing master-key system. Deliver four (4) master keys to the Town only.
3. A minimum 3'-0" of unobstructed floor space shall be provided in all directions around the pumping equipment or as otherwise accepted by the Town Engineer or Superintendent.
4. A ventilator shall be provided using forced air as opposed to exhaust. Ventilation requirements are 12 air changes/hour for continuous duty or 30 air changes/hour for intermittent duty. A ventilation louver shall be provided on the wall opposite to the ventilation fan.
5. No manholes or wet well entrances shall be located inside the pumping station building.
6. Water service shall be provided by one ¾-inch hose bib and sink located inside the building. This service must have a reduced pressure zone device as its backflow protection.
7. Sufficient electric heat shall be provided so as to prevent freezing inside the building at -10°F ambient temperature.
8. One outside entry light shall be provided near the entrance door. Provide adequate illumination for all areas in the station and the control panel, a minimum of 2 watts illumination per square foot shall be provided. This lighting shall be supplied by the required number of fluorescent type lighting fixtures, each having two (2) 40 watt fluorescent tubes and separate ballasts. A light switch shall be located adjacent to each door opening. Lighting circuit shall be protected by a thermal magnetic circuit breaker. All exterior lighting is to be controlled via a switch located on the inside of the building near the door entrance.
9. A minimum of two 110-volt receptacles shall be provided with ground fault protection and waterproof covers.
10. In general, the building type and architecture should match and compliment adjacent buildings and properties. It shall also meet all applicable building codes.

E. Wet Well

1. All penetrations through the slab to the wet well shall be sealed to prevent sewer gas leakage.
2. An aluminum door shall be provided for access to the wet well sized to provide a minimum 30"x30" clear opening. The door shall have a 300 lbs./square foot load rating with automatic hold open arm.

3. The bottom of the wet well shall be sloped 1:1 toward the pump suction inlet to minimize solids settling. Slope shall begin below pumps off elevation.
4. The wet well shall have a ductile iron 4-inch vent pipe with a 180° turn-down outside of the building. The vent pipe must be screened with stainless steel screen.
5. A ladder or manhole rungs of corrosion-resistant materials shall be provided to provide access to the bottom of the wet well.
6. For 3-inch self-priming pumps or submersibles passing 2.5-inch solids, a strainer basket to remove rags shall be required. The strainer basket bars shall be 2 in. on center and the basket mounted on guide tracks and removable without entering the wet-well. The basket and guide tracks shall be constructed of welded aluminum and anchored with stainless steel nuts and bolts. Provide aluminum winch stand for removal of basket.
7. The wet-well volume shall be of sufficient capacity to ensure that the time between pump run cycles is within the requirements of the electric motor manufacturer. For duplex pumping stations with alternating pumps, the wet-well cycle time between pump on and pump off levels shall be a minimum of 10 min. for motor sizes less than 15 HP or 15 min. for motor sizes greater than 15 HP when the inflow to the wet well is one-half of the pump rated capacity.
8. Provide adequate distance between the pump off level and the pump suction intake pipe to prevent vortexing.
9. To prevent concrete deterioration from hydrogen sulfide and other sewer gases, the wet well shall be lined with High Density Polyethylene (HPDE) sheets.

F. Pumps & Associated Controls

Unless performance conditions prohibit their use, all pumps shall be the suction lift type with pumps, motors, valves, and controls located inside a weatherproof above-ground enclosure. Basic details of these suction lift pumps shall include:

1. The pumps shall be located above grade inside the pump station building. Suction lift pumps shall be Super T-Series (or T-Series) as manufactured by the Gorman Rupp Company of Mansfield, Ohio or a Town of Berryville approved equivalent. Discharge piping and controls shall be furnished by Gorman-Rupp or a Town of Berryville approved equivalent. Each pump shall have a large cover plate opening to allow for unclogging and removal of the impeller. Each pump shall be equipped with the following:
 - a. Spring-assisted discharge check valve.
 - b. Discharge plug valve.
 - c. Air release valve, automatic, spring-assisted.
 - d. Suction and discharge gauges, glycerin-filled 3-1/2" diameter.
 - e. Drain valve with quick connect piping.
 - f. High pump temperature thermostat.
 - g. Pump controls shall be manufactured by Gorman-Rupp and employ an electronic pressure switch air bubbler wet well level controller with digital

readout of wet well level. The pump controller shall be equipped with high wet-well level alarm capability.

- h. All pumps shall be equipped with fixed speed ODP enclosure motors equipped with OSHA-compliant V-belt drive for setting the design pump rpm. Pumps shall be of non-clog design capable of passing a minimum 2-1/2-inch sphere for 3-inch pumps and a minimum 3-inch sphere for larger pumps through all openings within the pump.
- i. For any design flow, a minimum of two fixed speed pumps shall be provided; each capable of pumping in excess of the peak hourly flow.
- j. Pumps, motors, valves, piping and controls shall be tested as a unit at the pump manufacturer's facility prior to shipment. Provide Town Engineer with a copy of the certified test data. Suction lift pumps must include certified reprime performance tests.
- k. All valves shall have ports designed to pass 3-inch spherical solids.
- l. Pumps shall be designed to create a low-pressure area within the pump housing to initiate priming. No vacuum-assisted priming systems will be acceptable.
- m. The station shall be equipped with an emergency by-pass connection with both suction and discharge connections. Connections shall be a minimum 4 inch aluminum cam and groove connector with a cover plate and required valveing to isolate pumps and connectors. The by-pass connection shall terminate outside the station enclosure.
- n. The pump station controls must provide pump alternation and protection from short circuits, overloads, and low voltages on all phases.
- o. Provide the following spare parts for each pump:
 - i. Mechanical seal
 - ii. Cover Plate o-ring
 - iii. Shaft sleeve
 - iv. Suction flap valve
 - v. Sufficient volume of seal lubricant to perform one lubricant change in all pumps with a minimum volume of 2 quarts.
 - vi. Impeller
 - vii. Wear plate

Where suction lift pumps cannot be used, pumps shall be submersible with all valves and controls located above ground in a weatherproof enclosure. Basic details of submersible pumps shall include:

- 1. The pumps shall be specifically designed for submersible duty in a sewage environment, and shall be as manufactured by The Gorman-Rupp Company of Mansfield, Ohio or pre-approved equal. All valves, gauges, and controls shall be supplied by the pump manufacturer and shall be located above ground in a weatherproof fiberglass enclosure. Enclosure to be positively sealed from wet well. Each pump shall be equipped with the following:
 - a. Discharge check valve
 - b. Discharge plug valve
 - c. High motor winding temperature thermostat

- d. Motor housing moisture detector
- e. Discharge gauge kit, glycerin-filled, 3½ inch diameter
- 2. Pump controls shall be manufactured by the pump manufacturer and employ an electronic pressure switch air bubbler wet well level controller with digital readout of wet well level. The pump controller shall be equipped with high wet well level alarm capability.
- 3. All pumps shall be equipped with a fixed-speed motor with water-proof enclosure. Motors shall conform to NEMA standards, and shall be capable of operating in liquids with a maximum temperature of 40 degrees C. Motors and power cables shall be supplied as an assembly, and all components shall be water-tight such that the assembly is capable of operating at a continuous submergence of 65 feet without loss of water-tight integrity.
- 4. For any design flow, a minimum of two fixed speed pumps shall be provided; each capable of pumping in excess of the peak hourly flow.
- 5. Pumps, valves, motors, piping and controls shall be tested as a unit at the pump manufacturer's facility prior to shipment. Provide Town Engineer with a copy of the certified test data.
- 6. All valves shall have ports designed to pass 3-inch spherical solids.
- 7. Provide stainless steel guide rails, sized in accordance with the pump manufacturer's recommendations, for each pump. If desired by the Town Engineer, provide a portable hoist and winch assembly suitable for lifting the pumps. Hoist socket shall be permanently installed on station slab.

G. Electrical

- 1. Electrical service shall be 3-phase, 60 HZ, 460 volt.
- 2. Phase conversion equipment to convert single phase power to three phase power shall not be acceptable.
- 3. Control voltage shall be 110 volt.
- 4. Electrical components shall be as manufactured by Allen-Bradley, General Electric, or Furnas. Circuit breakers shall have through the door operating mechanisms to prevent the door from opening when the breakers are in the "on" position. Motor starters, relays and selector switches shall be NEMA rated. Enclosure shall be stainless steel.
- 5. The pump control panel shall be manufactured by the pump manufacturer. Each panel shall be built by a UL panel builder and the assembly shall bear a serialized UL label for "Enclosed Industrial Control Panels". All wiring, workmanship, and schematic wiring diagrams shall be in compliance with the National Electric Code (NEC).
- 6. Pump stations shall be equipped with the necessary equipment to interface with the Town SCADA system as determined by the Director of Utilities. Provide the following minimum alarm conditions; high water alarm, pump fail to start, high pump temperature, power failure, engine overcrank, battery failure, and high engine temperature. A separate float switch shall be wired directly to the SCADA to serve as an independent high water alarm.
- 7. All equipment shall be wired for automatic restart capability after restoration of power.

8. Elapsed time meters shall be provided for each pump on the motor control panel.
9. The pump station controls must provide pump alternation and protection from short circuits, overloads, and low voltages on all phases.
10. ~~Pump stations shall provide an emergency generator and automatic load transfer switch, inside a building, for backup.~~ **Pump stations shall be equipped with an emergency generator and automatic load transfer switch. If the generator is installed outside the main station building, it shall be located inside a sound attenuating enclosure and fencing and screening shall be provided per Section 14. C. 1.** Units shall be powered by natural gas or LP gas. If LP gas is used, provide calculations on storage tank sizing. Fuel tank is to be sized to allow for five days of continuous operation. Provide a 115 volt battery charger to maintain the charge on the 12 volt DC battery supplied with the engine.
11. LP Fuel tanks shall be designed for underground storage meeting ASME standards and installed following NFPA 58 standards. A minimum of twelve (12) inches of sand shall surround the tank to allow for improved water draining. Tank domes shall be equipped a drain leading to a location lower than the dome and away from the tank. Cathodic protection is to be provided for all LP tanks. Tanks installed in flood plains must be properly anchored to a four (4) inch thick slab buried at least seventy (70) inches below grade with four eye bolts installed in the slab at time of pour. If underground storage is not possible and a waiver is granted by the Town's Director of Utilities or the Town Engineer, above ground installation following the NFPA 58 standards is required and screening shall be provided as determined by the Town Planner.

H. Force Main

1. Force main and fittings of diameters 4 inch and larger shall be Polyvinyl Chloride (PVC) manufactured in accordance with ANSI/AWWA C900.
2. All PVC SDR Series pipe shall be manufactured from a Type I, Grade I Polyvinyl Chloride (PVC) compound with a Cell Classification of 12454 per ASTM D1784. The pipe shall be manufactured in strict compliance to ASTM D2241, consistently meeting and/or exceeding the Quality Assurance test requirements of this standard with regard to pressure rating, material, workmanship, burst pressure, flattening, impact resistance, and extrusion quality.
3. All force mains shall be pressure tested in accordance with procedures in ANSI/AWWA C 600.
4. Depth of cover shall be a minimum of 4' - 0".
5. A by-pass connection with a quick connect coupling and shut-off plug valve shall be installed inside the pump station building on the discharge header to allow for bypass pumping into the force main.
6. Force main shall be designed to operate at velocities between 2.0 and 5.0 feet per second.
7. Minimum force main pipe diameter is 4-inch, unless otherwise approved by the Town Engineer, and unless a grinder pump is to be utilized. Force main sizing to be coordinated with pump design for optimum performance.

Town of Berryville Construction Standards and Specifications - April 2015
Section 14 * Minimum Standards for Wastewater Pumping Stations

I. Start-Up

1. Start-up and equipment check operations shall be performed by an authorized service technician from the original equipment manufacturer.
2. The Town Engineer shall be notified forty-eight hours prior to start-up and a Town representative shall be present during the period of start-up.
3. A copy of the technician's start up report showing all field data control, set points and equipment condition shall be furnished to the Township Engineer.
4. Sufficient water for start-up and equipment check shall be the responsibility of the developer.

J. Submittals

Prior to beginning work on the station the following data shall be submitted to the Town Engineer for approval:

1. A completed application form.
2. All calculations and assumptions for the system head curve, total dynamic head, flow quantification, wet-well volume, pump duty cycle at average and peak daily flow, force main line velocity, as well as any other design calculations.
3. Site plan showing subject pumping station relative to area under development and the existing sewer system.
4. Building blueprints **prints** for the pumping station.
5. All pump curves.

Prior to acceptance of the pumping station, the following shall be submitted to the Town Engineer:

1. Three copies of the equipment submittal drawings.
2. Three copies of the manufacturer's O/M manuals for all mechanical and electrical equipment.
3. Recommended spare parts list from the equipment manufacturer.
4. One copy of manufacturer's certified test data including reprime performance tests.

II *Summary of Design Criteria*

DESIGN PARAMETER	DESIGN VALUE
1. FLOW DEVELOPMENT	
a. Single family dwellings, GPD/capita	100
b. Others	per accepted text or manuals
2. RATIO OF PEAK HOURLY FLOW/DESIGN AVERAGE FLOW	2.5
3. SITE	
a. Fence	chain link (6' min.)
b. Roadway	asphalt or concrete, single lane, less than 15% grade
c. Maximum landscaped slope, %	15
d. Flood protection, flood event	100 Yr.

Town of Berryville Construction Standards and Specifications - April 2015
Section 14 * Minimum Standards for Wastewater Pumping Stations

4. BUILDING (unless alternate is approved)
 - a. Minimum clear ceiling height, ft. 8
 - b. Unobstructed floor space around pumps, ft. 3
 - c. Ventilation requirements, air changes/hr 12 continuous, 30 intermittent
 - d. Potable water service line, in 3/4
 - e. Interior lighting, 2 bulb, 40W fixtures 2 watts/SF minimum
 - f. Interior electrical receptacles, 110 volt 2
5. WET-WELL
 - a. Minimum wet-well bottom slope 1:1
 - b. Detention time between pump run cycles, min. 15
6. PUMPS
 - a. Maximum pumping rate 2x designed peak pump station influent
 - b. Minimum number of pumps 2
 - c. Pump type suction lift, constant speed unless conditions prohibit
7. ELECTRICAL
 - a. Incoming service, volt/phase 460, 3 phase
 - b. Control voltage, volts 110
8. FORCE MAIN
 - a. Pipe material of construction C 900 PVC
 - b. Depth of cover, ft. 4
 - c. Line velocities, fps 2.0-5.0

APPLICATION FORM FOR WASTEWATER PUMPING STATION

All construction plans and specifications for pumping stations must be submitted to the Virginia Department of Environmental Quality, Valley Regional Office, for review and approval. A copy of the DEQ's approval must be provided to the Town, prior to final approval by the Town of Berryville.

A. General Information

1. Name of project served _____
2. Total area served, acres _____
3. Estimated start of construction _____
4. Estimated completion date _____

B. Applicant

I, the undersigned, am fully aware that the statements made in this application for approval of a wastewater pumping station are true, correct and complete to the best of my knowledge.

Mailing Address

Signature of Applicant

Telephone No.

Name and Title

Date

Representing

C. Engineer

This is to certify that this application has been prepared under my direction and the plans and specifications for this wastewater pumping station have been designed by me and are in conformance with sound engineering practices.

Mailing Address

Signature of Engineer

Company Name

Name

Telephone Number

Registration No.

Date

APPLICATION FORM FOR WASTEWATER PUMPING STATION PAGE 2

D. Critical Elevations

- | | |
|-------------------------------------|-------|
| 1. 100 year flood | _____ |
| 2. Top of pumping station structure | _____ |
| 3. Influent line in wet-well | _____ |
| 4. Bottom of wet-well | _____ |
| 5. Pump on | _____ |
| 6. Pump off | _____ |

E. Quantification of Design Flow

	UNITS	@	GAL/UNIT	GPD
1. Single Family Dwellings	_____	@	_____	_____
2. Condominiums, Apartments	_____	@	_____	_____
3. Swimming Pools	_____	@	_____	_____
4. Motels	_____	@	_____	_____
5. School	_____	@	_____	_____
6. Commercial	_____	@	_____	_____
7. Industrial	_____	@	_____	_____
8. Other	_____	@	_____	_____

Average Daily Flow	_____	GPD
Minimum Daily Flow	_____	GPD
Peak Hourly Flow	_____	GPD
Peaking Factor	_____	

F. Design Information

- | | |
|---|-------|
| 1. Head | |
| a. Static head, ft | _____ |
| b. Total dynamic head, ft | _____ |
| 2. Wet-Well | |
| a. Volume, CF | _____ |
| b. Detention time at peak hourly flow, min. | _____ |
| c. Time between pump starts | _____ |
| d. Ventilation present | _____ |
| e. Strainer basket present | _____ |
| 3. Pumps | |
| a. Pump manufacturer/Model No. | _____ |
| b. Number of pumps | _____ |
| c. Type of pumps | _____ |

APPLICATION FORM FOR WASTEWATER PUMPING STATION PAGE 3

d. Pump capacity

No. 1 _____ GPM @ _____ TDH; _____ HP

No. 2 _____ GPM @ _____ TDH; _____ HP

e. Pump controller

Manufacturer/Model No. _____

4. Force Main

a. Pipe material of construction _____

b. Pipe diameter, inches _____

c. Line velocity _____

d. Depth of cover, ft. _____

5. Electrical

a. Electrical service manufacturer _____

b. Voltage, Phase _____

c. Automatic restart capability _____

d. Alarm manufacturer/Model No. _____

e. Emergency generator, standby engine
or portable engine driven pump _____

6. Building

a. Interior 3/4" hose bib present _____

b. Minimum unobstructed distance around
equipment, ft. _____

c. Overhead support beam present _____

d. Ventilator present _____

e. Number of 110 volt electrical receptacles _____

f. Area of building, SF _____

7. Submittals attached with this application

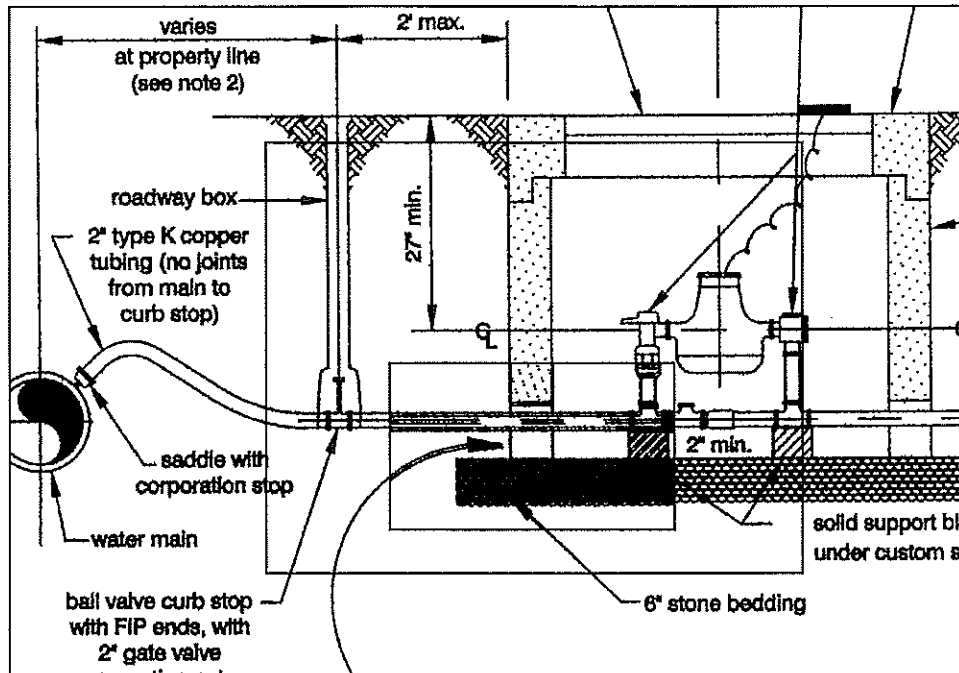
a. Calculations _____

b. Site plan _____

c. Building blueprints _____

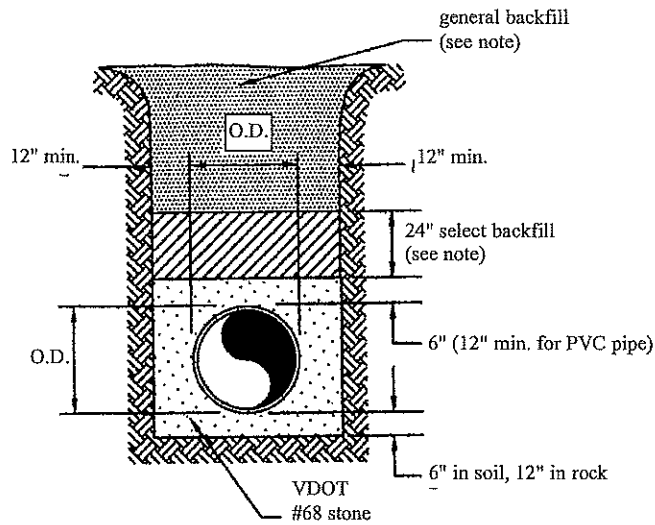
d. Pump curves _____

Town of Berryville

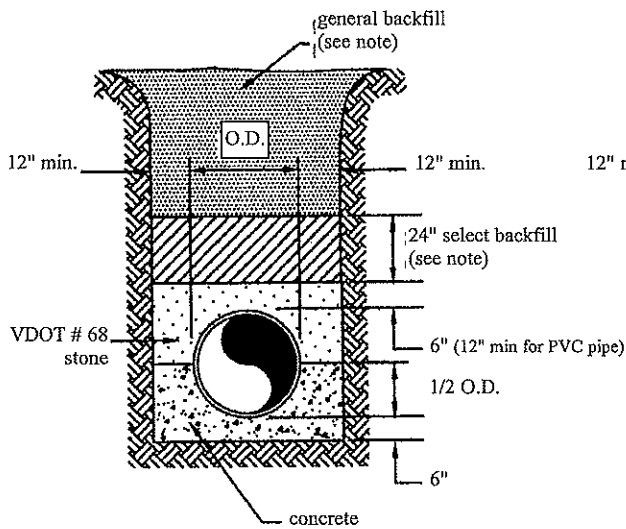


Standard Details

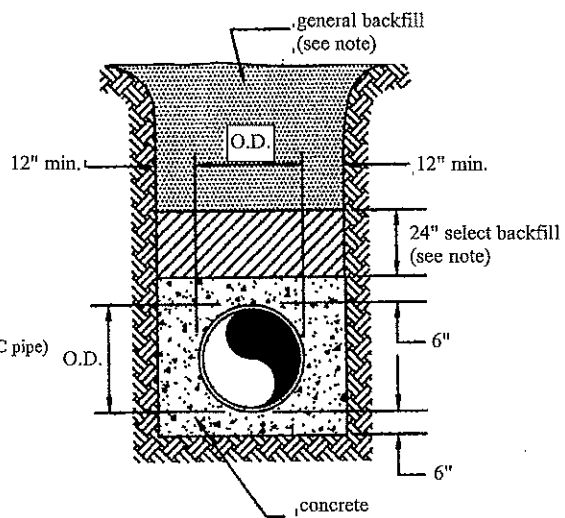
April • 2015



STANDARD



CONCRETE CRADLE



Concrete Encasement

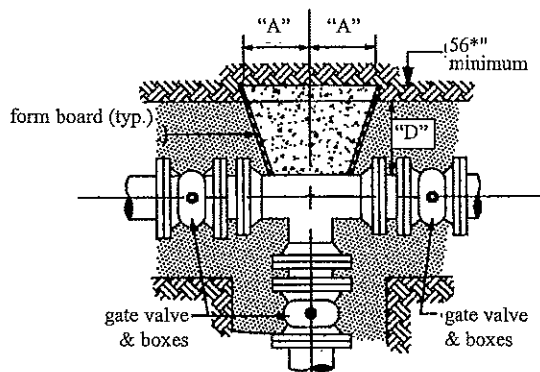
NOTE: Backfill to be compacted to at least 95% of maximum dry density per ASTM D698 placed in maximum eight (8) inch lifts..

TRENCH & BEDDING

Figure 1

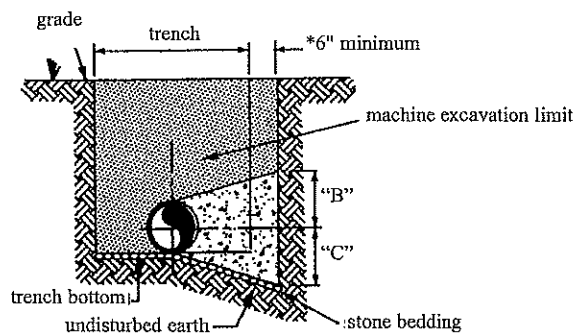
Town of Berryville

Water and Sewer Construction Standards and Specifications 2015



TEE, WYE, OR PLUG

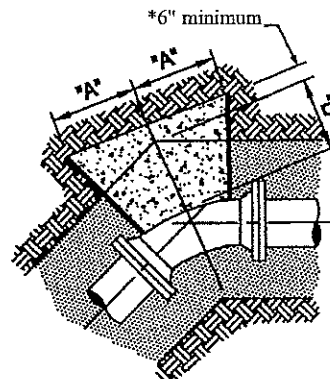
In lieu of wood forming, the fitting may be wrapped with polyethylene and the concrete poured to completely surround the fitting against undisturbed soil. The bearing dimensions against undisturbed soil shall remain as shown.



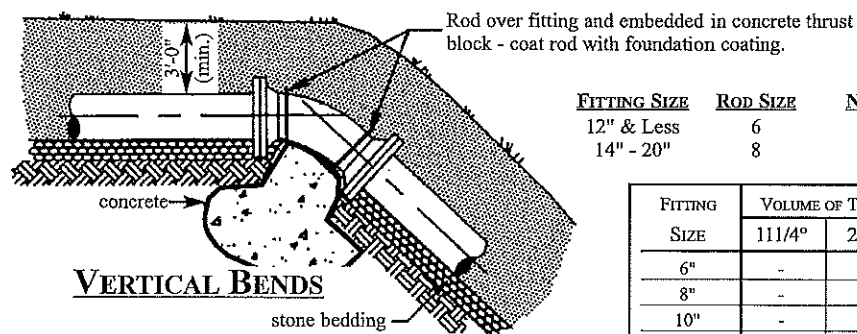
TYPICAL SECTION

* denotes hand excavation
 "D" = 12" min. for 10" and smaller pipe
 "D" = 18" min. for 12" thru 20" pipe
 see chart below for A, B, C dimensions

CONCRETE DIMENSIONS FOR HORIZONTAL THRUST BLOCKS									
PIPE DIA.	PLUGS, WYES & TEES			11 1/4° AND 22 1/2° BENDS			45° AND 90° BENDS		
-	A	B	C	A	B	C	A	B	C
6"	1'-0"	0'-9"	1'-0"	0'-9"	0'-9"	0'-9"	1'-3"	0'-9"	1'-9"
8"	1'-3"	0'-9"	1'-3"	0'-9"	0'-9"	0'-9"	1'-6"	0'-9"	2'-3"
10"	1'-6"	0'-9"	1'-3"	1'-0"	0'-9"	1'-3"	1'-9"	0'-9"	2'-6"
12"	1'-9"	1'-0"	2'-6"	1'-3"	1'-0"	1'-6"	2'-0"	1'-0"	3'-0"
14"	2'-0"	1'-0"	3'-0"	1'-3"	1'-0"	1'-6"	2'-6"	1'-0"	4'-0"
16"	2'-3"	1'-0"	3'-6"	1'-6"	1'-0"	2'-0"	2'-9"	1'-0"	4'-6"
18"	2'-6"	1'-3"	3'-9"	1'-6"	1'-3"	2'-0"	3'-0"	1'-3"	4'-9"
20"	2'-9"	1'-6"	4'-0"	1'-9"	1'-6"	2'-0"	3'-3"	1'-6"	5'-0"



11 1/4° THRU 90° BENDS



VERTICAL BENDS

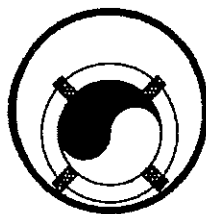
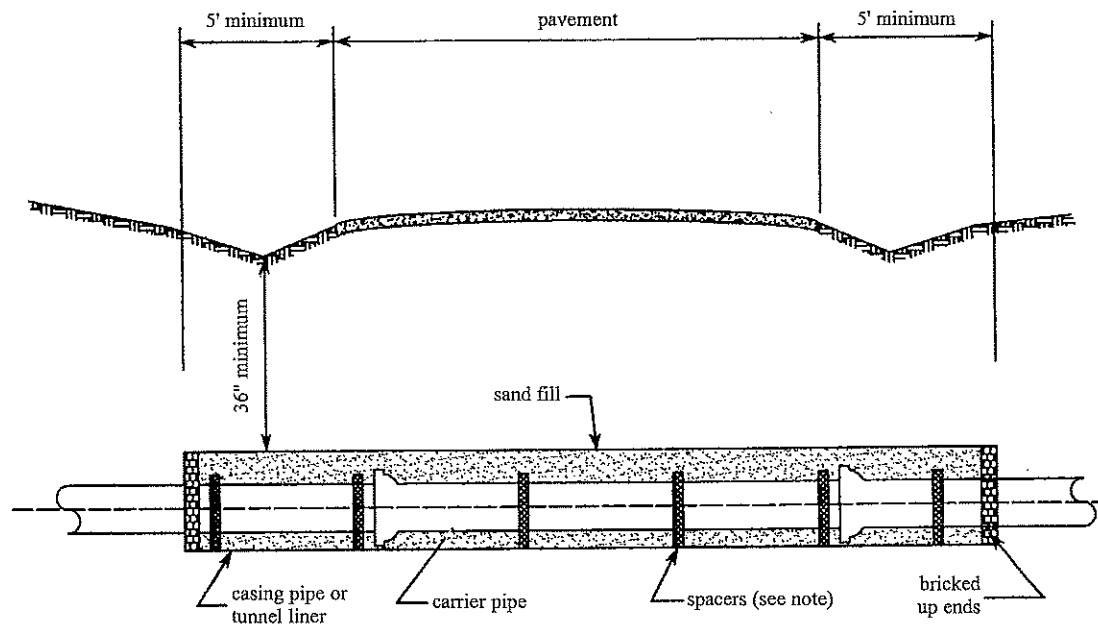
THRUST BLOCKS FOR VERTICAL UP BENDS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.

FITTING SIZE	ROD SIZE	NO. RODS	EMBEDMENT
12" & Less	6	2	30"
14" - 20"	8	2	36"

FITTING SIZE	VOLUME OF THRUST BLOCK PER CUBIC YARD			
	11 1/4°	22 1/2°	45°	90°
6"	-	-	-	1.3
8"	-	-	1.1	2.3
10"	-	-	1.8	3.7
12"	-	1.2	2.8	5.5
14"	0.5	1.7	3.9	7.6
16"	0.9	2.3	5.1	-
18"	1.4	3.2	6.3	-
20"	2.2	4.5	7.8	-

CONCRETE THRUST BLOCKING

Figure 2



SECTION

NOTE:

1. Separation of carrier pipe shall be by manufactured casing spacers with plastic runners.
2. Spacers shall be placed on spigot end within 6 inches of connection to bell; then 2 spacers evenly placed on length of pipe.

SIZES REQUIRED

Carrier Pipe Dia. (")	Casing Pipe Dia. (")	Wall Thickness (")
4 or less	12	.250
6	16	.250
8	18	.375
10	20	.375
12	24	.375
14	24	.375
15	24	.375
16	30	.500
18	30	.500
20	36	.500
21	36	.500
24	36	.500
(for larger pipe use tunnel liner)		

Water Service Laterals

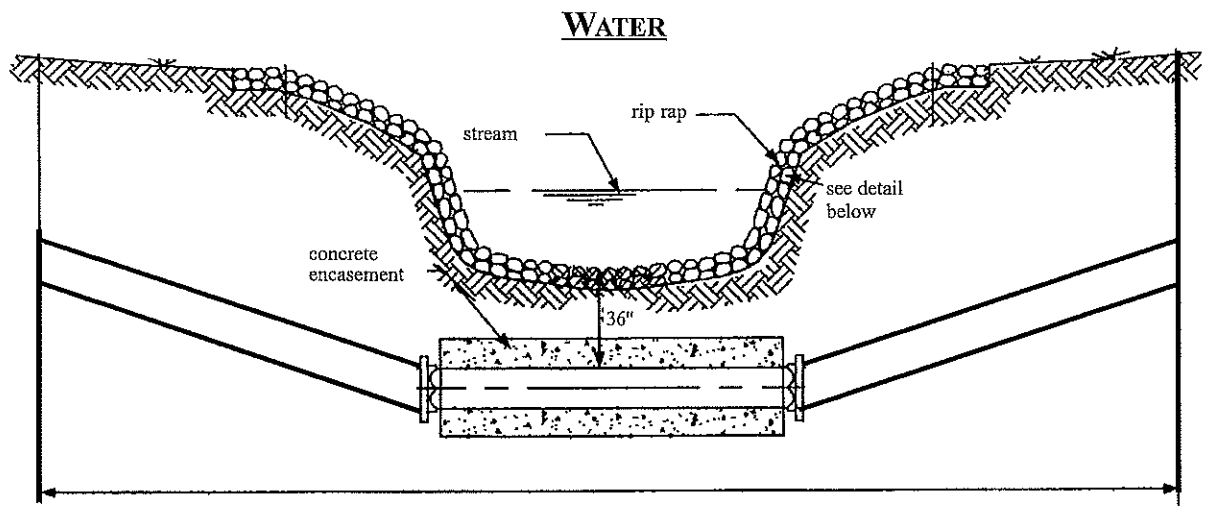
- a) Casing pipe shall be SCH 40 PVC or SDR 21
- b) 3" diameter pipe for 1" service lines
- c) 6" diameter pipe for 2" service lines
- d) No spacers or sand fill to be installed

HIGHWAY CROSSING

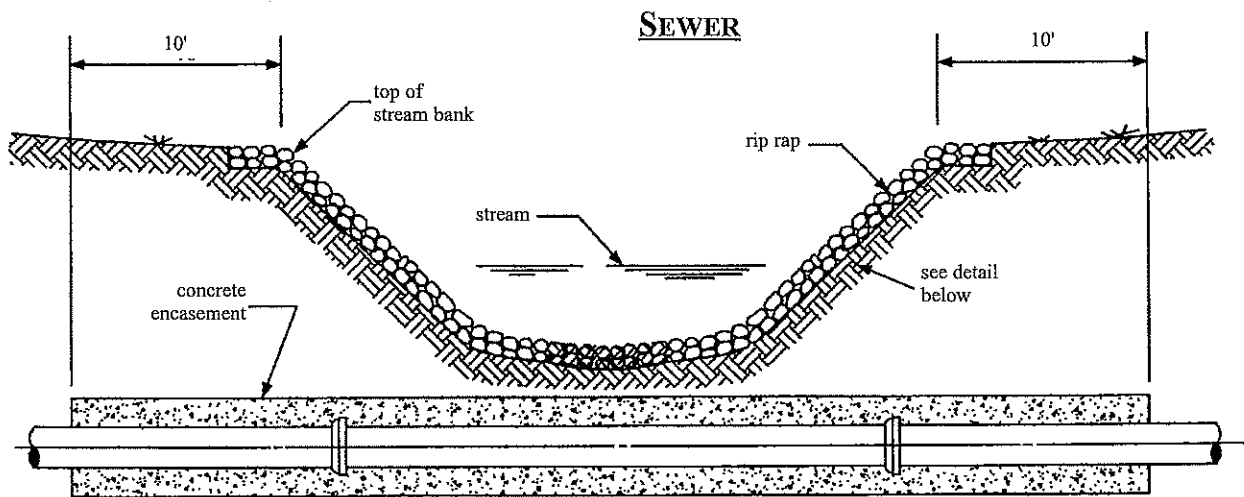
Figure 3

Town of Berryville

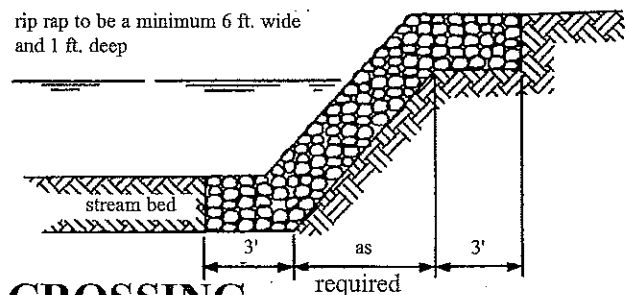
Water and Sewer Construction Standards and Specifications 2015



M.J. FITTINGS AND D.I. PIPE RESTRAINED BY MEGALUG RESTRAINING GLANDS.



rip rap to be a minimum 6 ft. wide
and 1 ft. deep

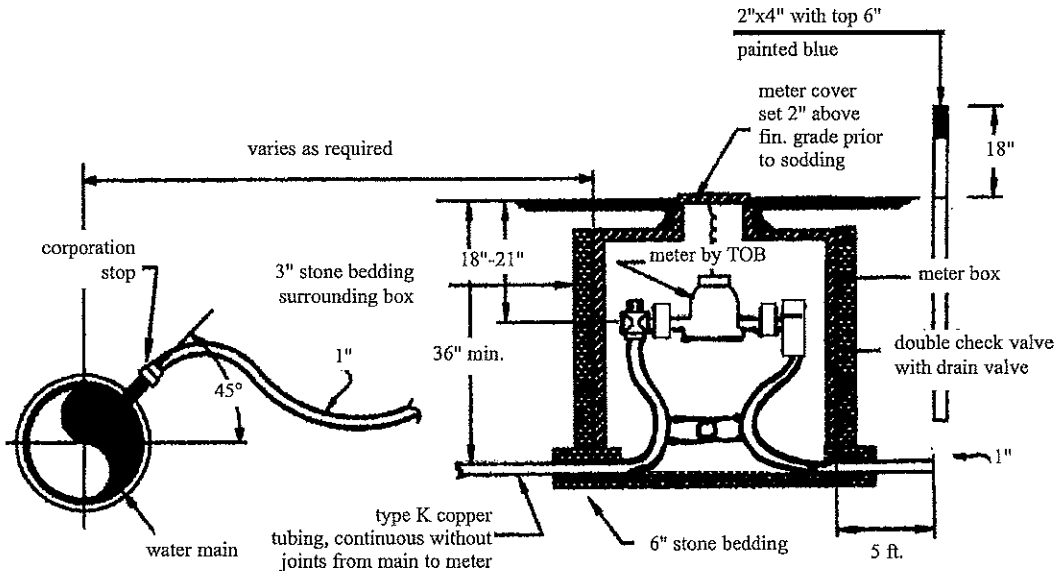


STREAM CROSSING

Figure 4

METER BOX & COVER

Meter Size	Meter Box		Meter Box Cover
5/8"x3/4" or 3/4"	18 in Dia.	Non-Traffic	M32C-PW + FP cast iron plug
		Traffic	A32HH-T
1"	24 in Dia.	Non Traffic	MC-24 (Frame) WITH RML-1-T (Top Lid)
		Traffic	MC-24 (Frame) WITH RML-12-T (Top Lid)



METER SETTING PARTS		
SERVICE PIPING DIA.	METER SIZE	FORD METER SETTER
3/4"	5/8"x3/4" (20 GPM)	VBHC 72 12W 4433
1"	5/8"x3/4" (20 GPM)	VBHC 72 15W 44-44B4
1"	3/4" (30 GPM)	VBHC 72 15W 44-44B4
1"	1" (50 GPM)	VBHC 74 15W 4444

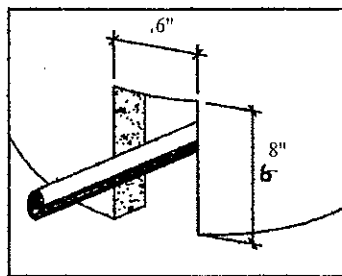
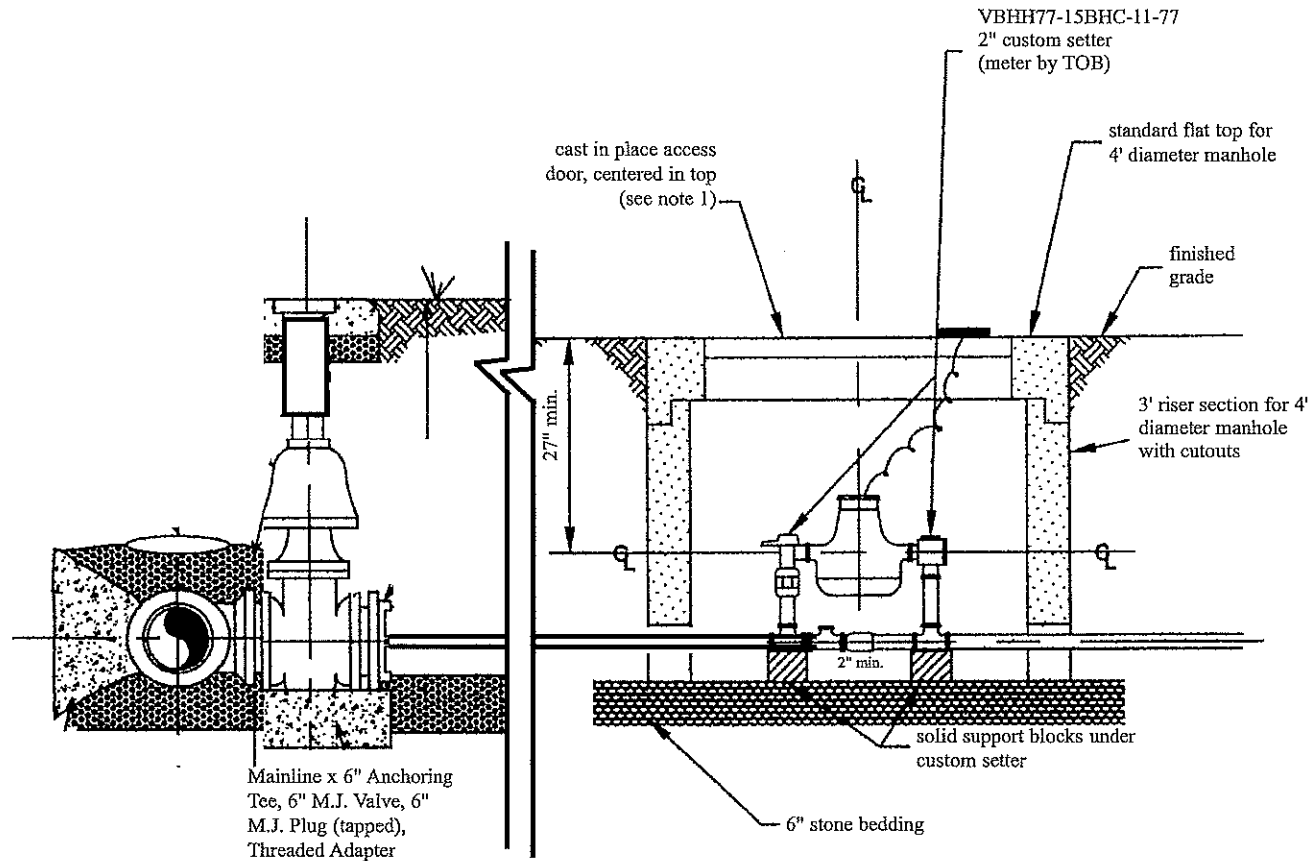
NOTE: Equivalent meter setters by other manufacturers may be installed with prior approval of the Director of Public Works.

INSTALLATION NOTES:

1. Exact location of meter box assembly to be approved prior to installation.

5/8" x 3/4", 3/4" & 1" Meter Installation

Figure 5



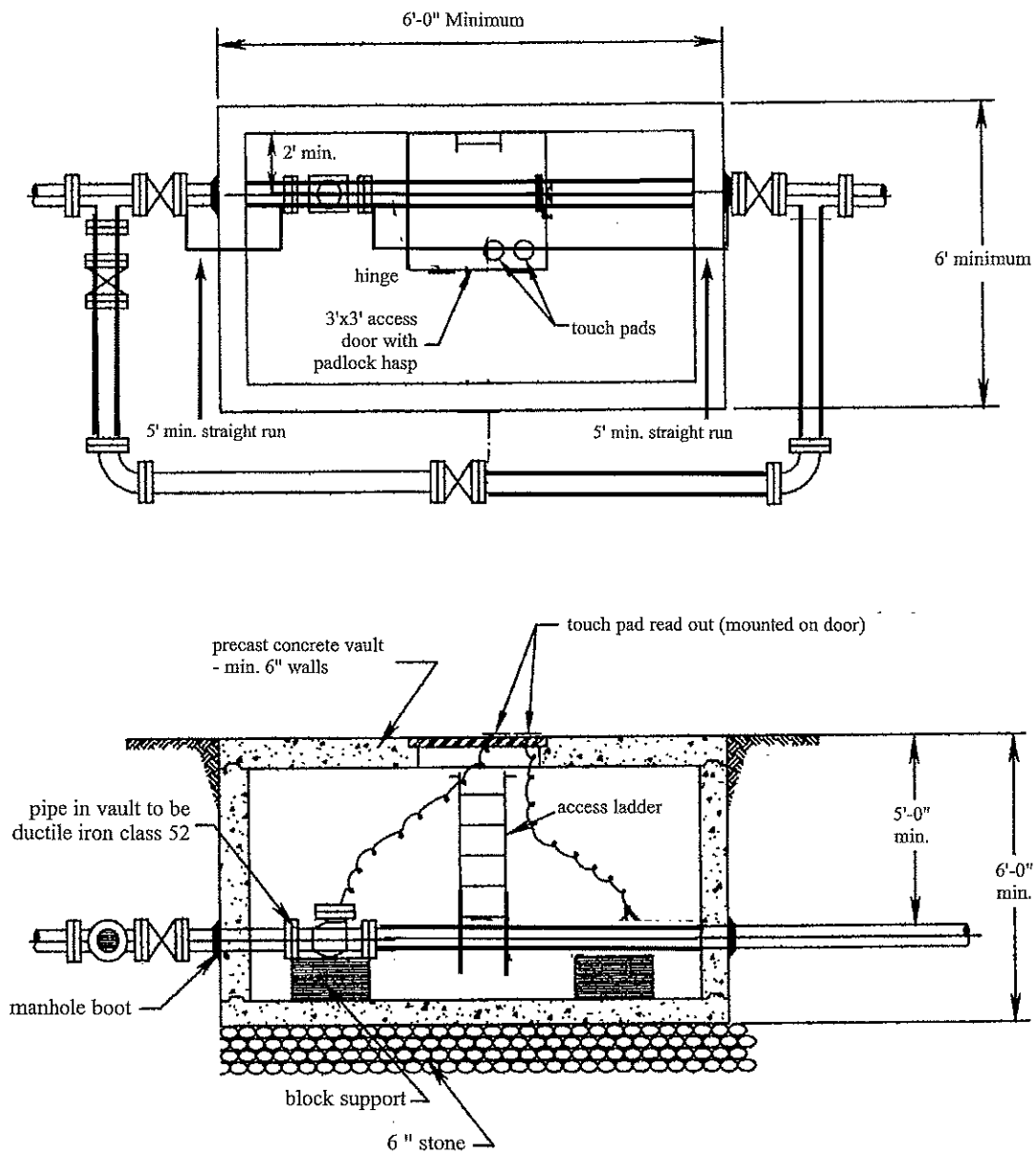
CUTOUT DETAIL
(typical)

NOTES:

1. Access door shall be by Halliday Products or our approved equal:
 - a) in non-traffic area - model no. S1R3030
 - b) in traffic area - model no. H1R2424
2. Water service crossing street shall be encased in 6" diameter SCH40 PVC or SDR21 piping. The piping shall run from one foot beyond sidewalk, across the street, to one foot beyond sidewalk.

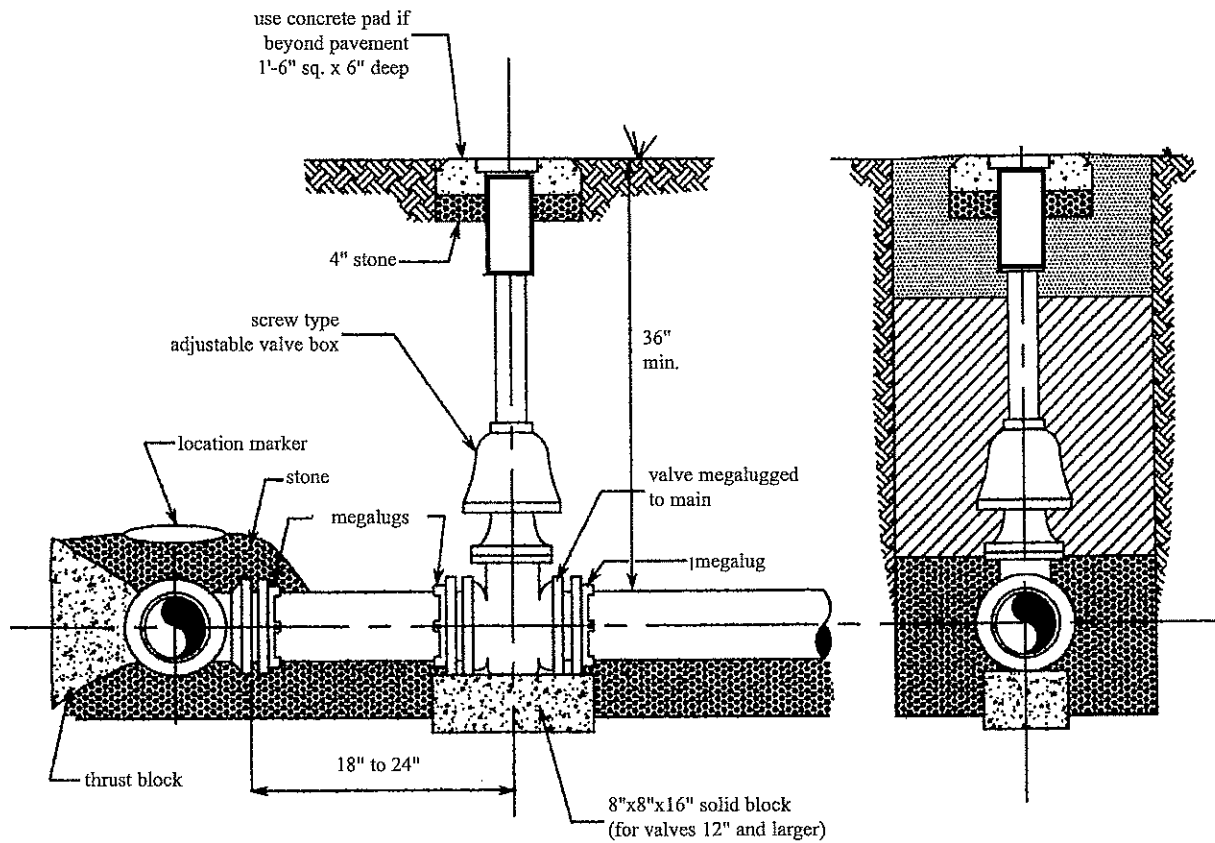
1 1/2" AND 2" METER INSTALLATION

Figure 6



3" THROUGH 8" METER INSTALLATION

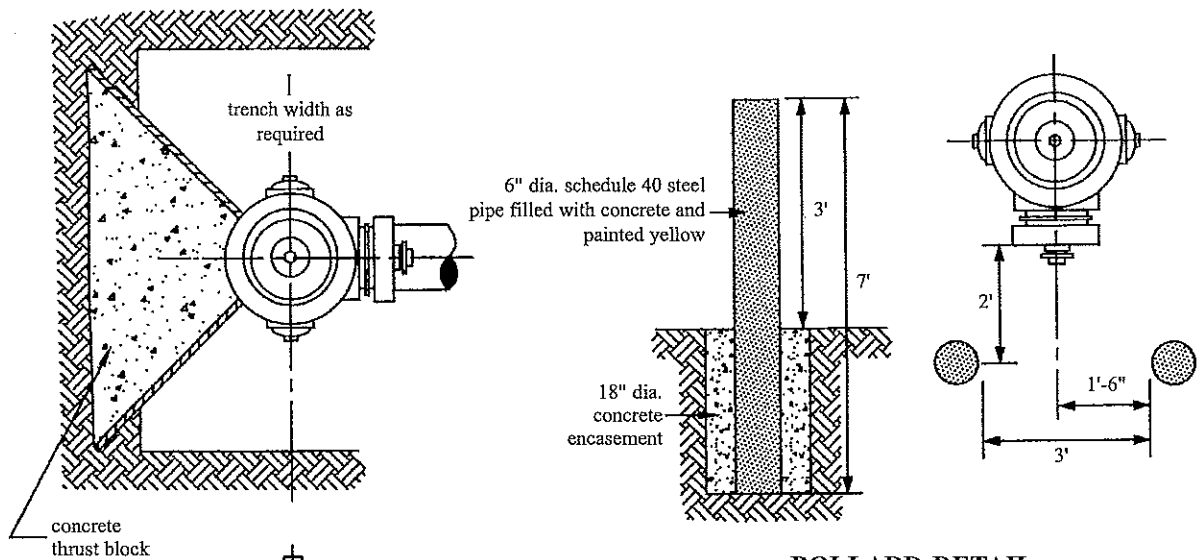
Figure 7



NOTE: this detail is also used for butterfly valves

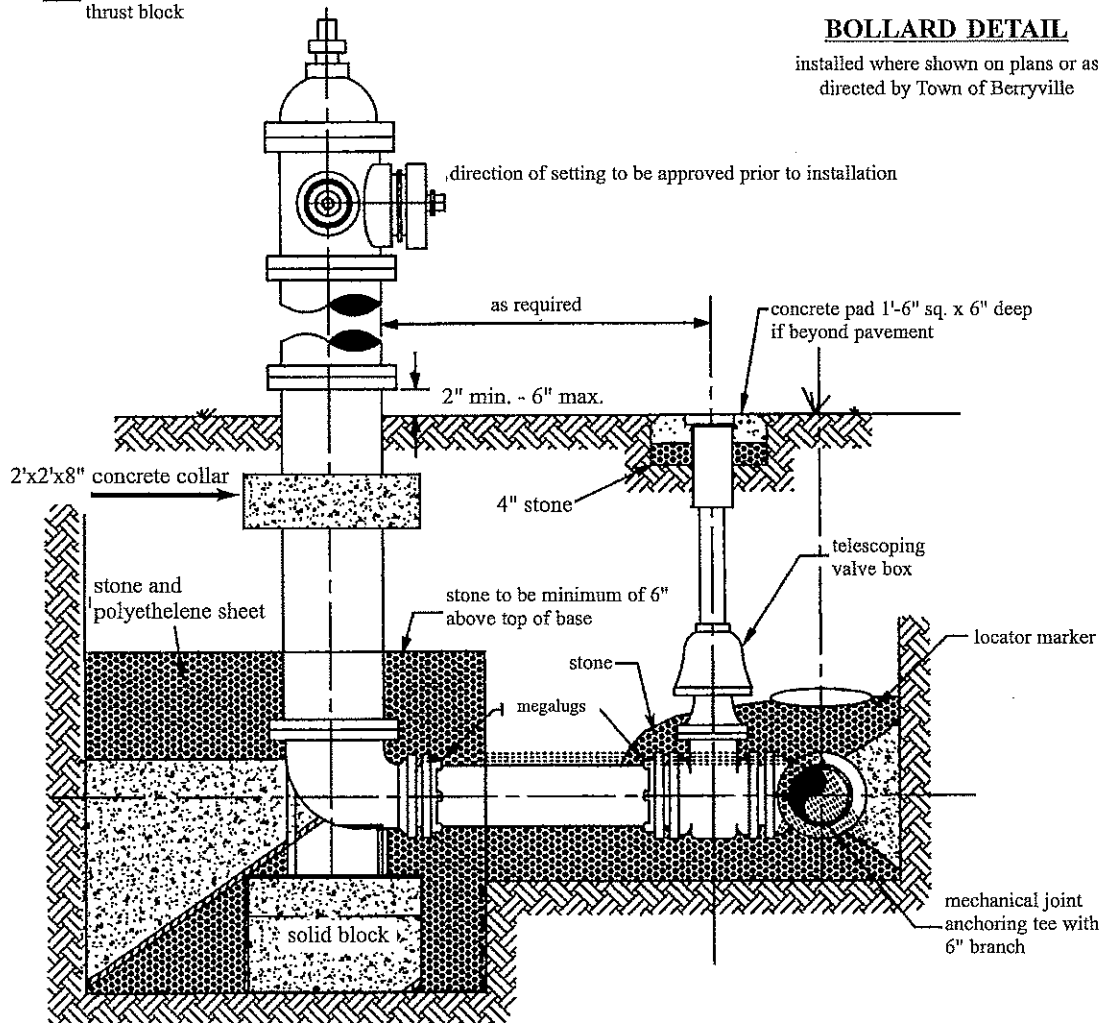
GATE VALVE

Figure 8



BOLLARD DETAIL

installed where shown on plans or as directed by Town of Berryville

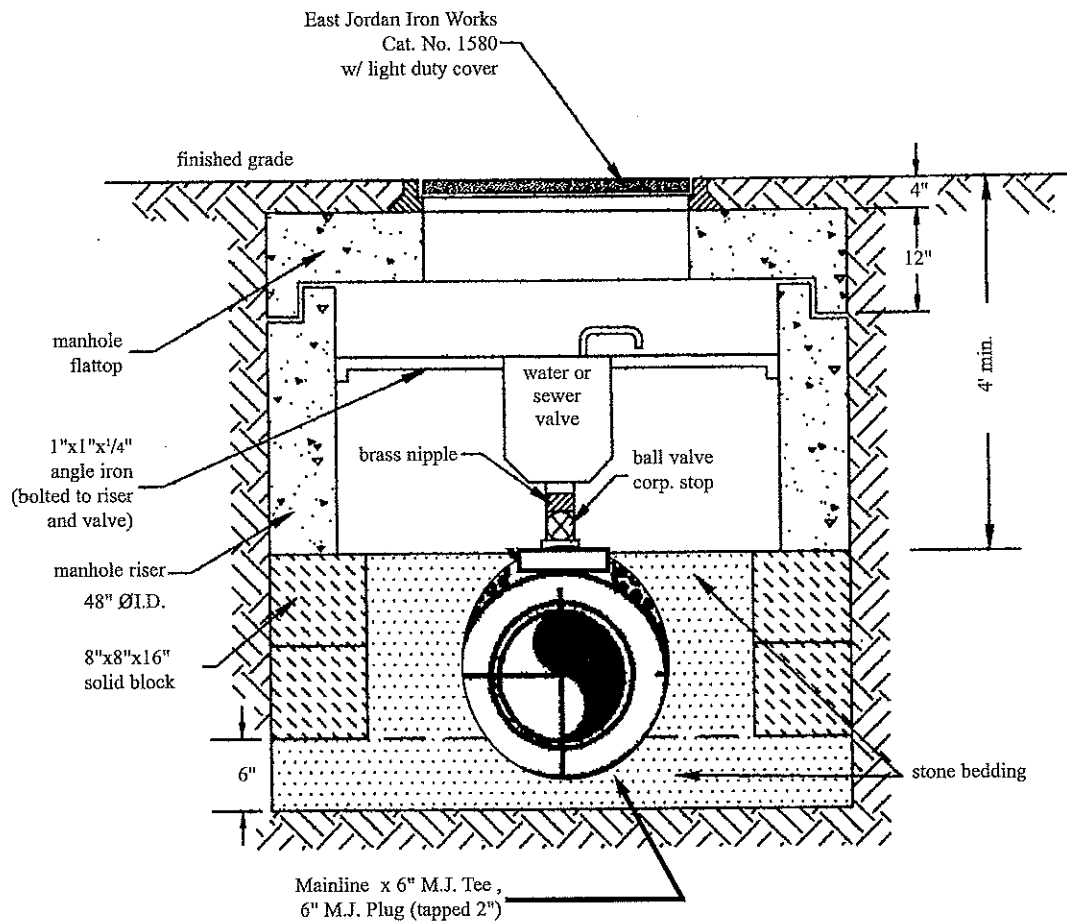


FIRE HYDRANT ASSEMBLY

Figure 9

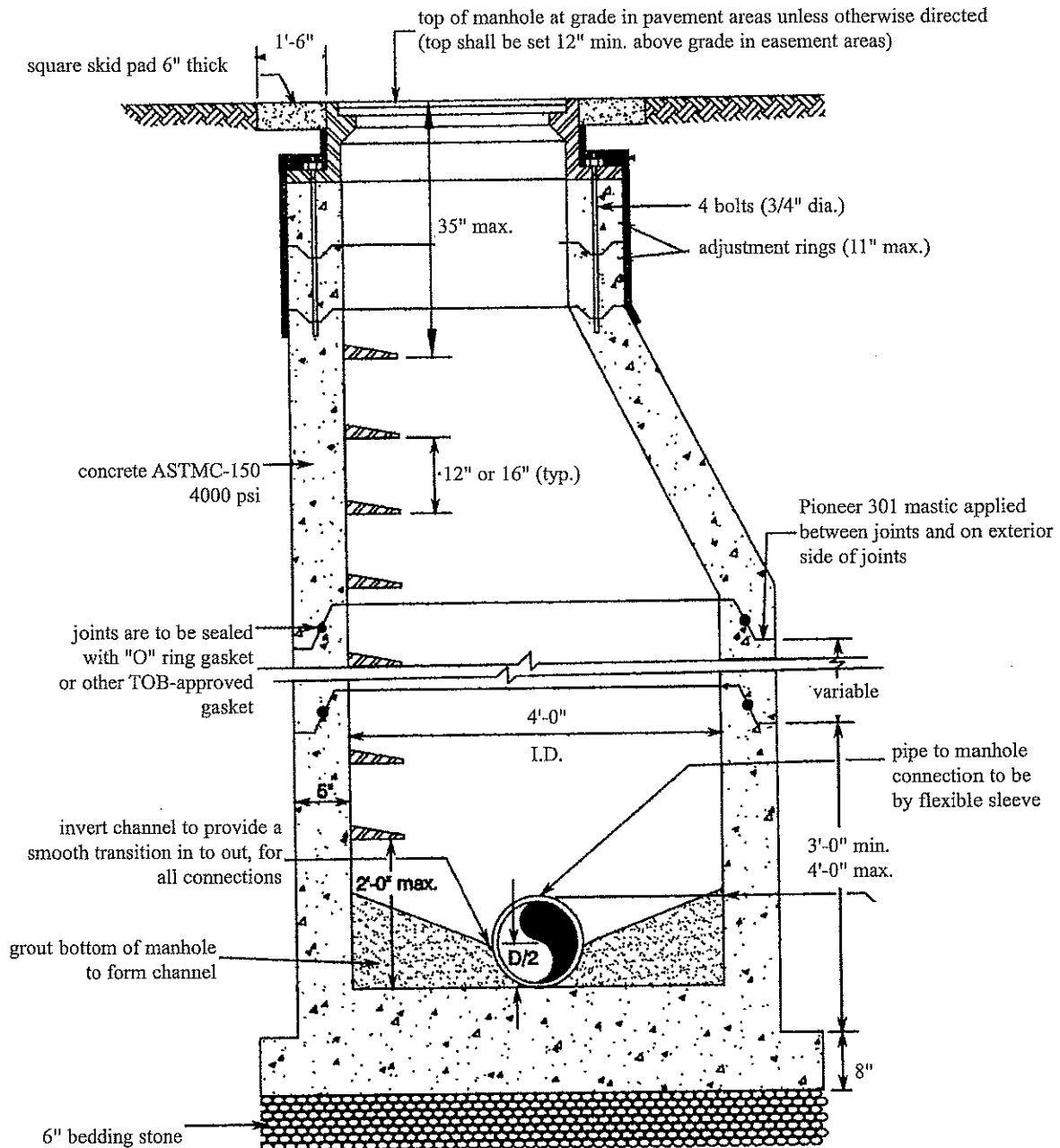
Town of Berryville

Water and Sewer Construction Standards and Specifications 2015



COMBINATION AIR RELEASE AND AIR VACUUM VALVE

Figure 10



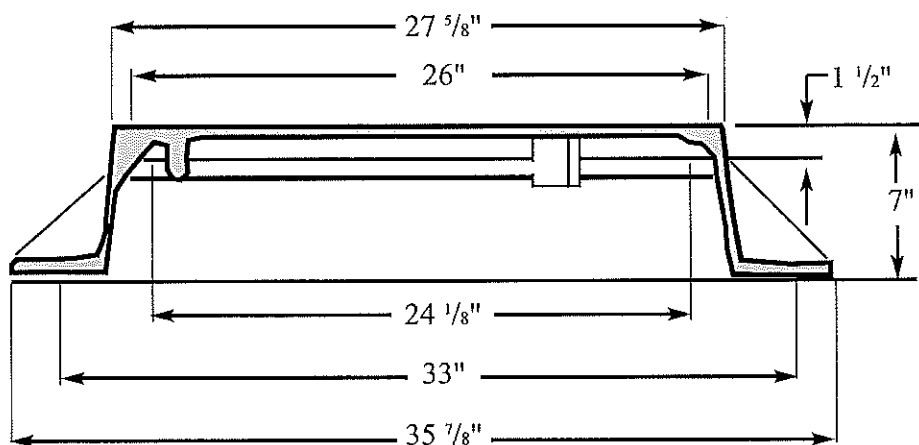
- NOTES:
1. Manhole sections shall have an external coating of approved bitumastic water proofing prior to installation.
 2. If adjustment elevation exceeds two inches use concrete adjustment rings with a exterior coating of bitumastic water proofing.
 3. Final slope adjustment of manhole frame may be by shims and non-shrink grout.
 4. Skid pad to be placed around manholes located in shoulders of roads.
 5. Flat top casting shall be used on shallow manhole (6 ft. or less) installations.
 6. Slope bench at 1":1' toward channel.

STANDARD MANHOLE

Figure 11

Town of Berryville

Water and Sewer Construction Standards and Specifications 2015



NOTE:

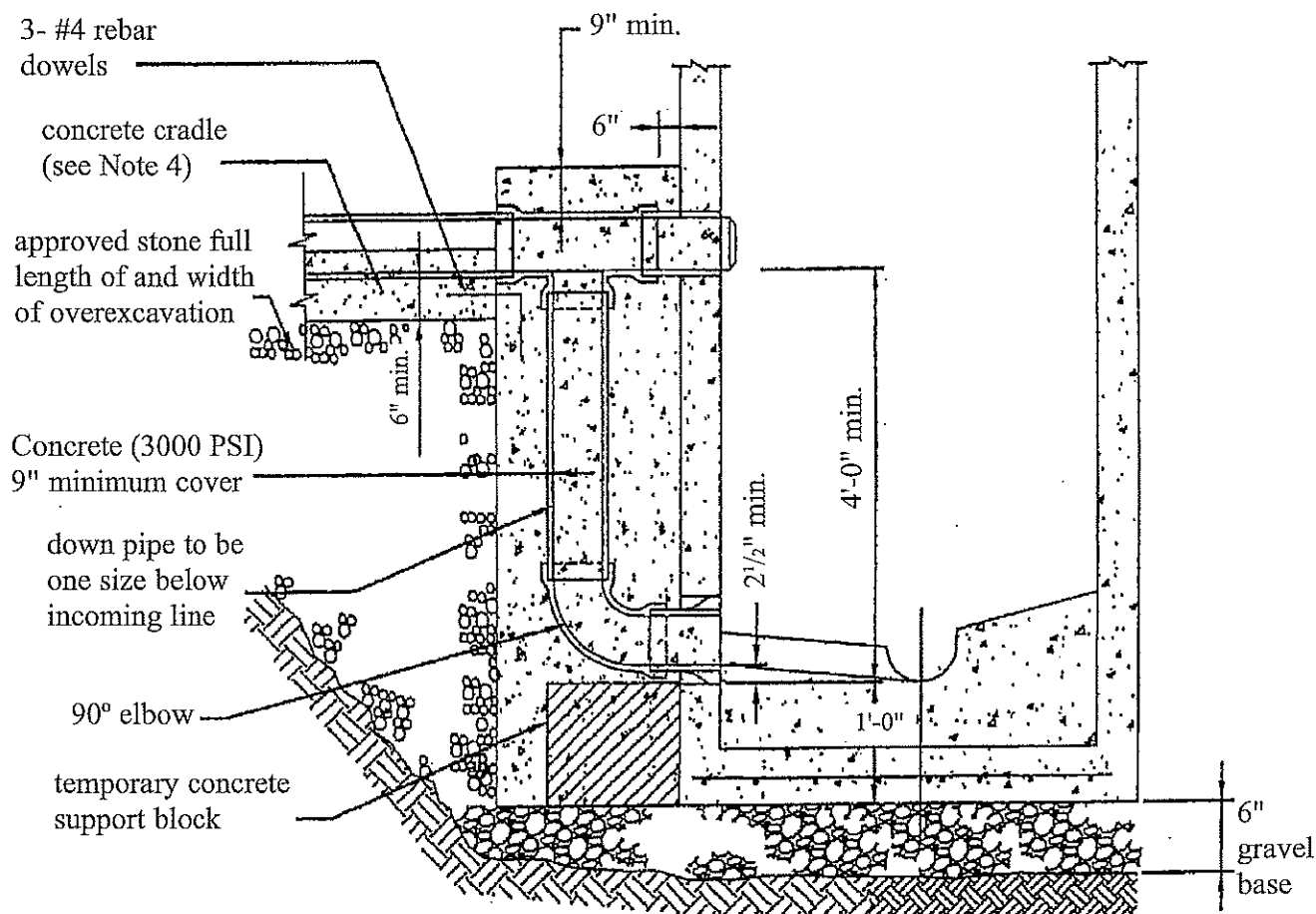
1. Castings shall be manufactured true to pattern. Component parts shall fit together in a satisfactory manner. Castings shall be smooth and well cleaned by shotblasting.
2. Metal shall be ASTM-A-48 Class 35B gray iron minimum, or ASTM-A-536 Grade 80-55-06 for ductile iron.
3. Castings shall have a minimum tensile strength of 35,000 P.S.I., H20 loading.
4. Watertight castings shall be furnished with a bolt down lid and gasket.
5. Standard castings shall be furnished with a compression sealing gasket.

MANHOLE COVER & FRAME

Figure 12

Town of Berryville

Water and Sewer Construction Standards and Specifications 2015

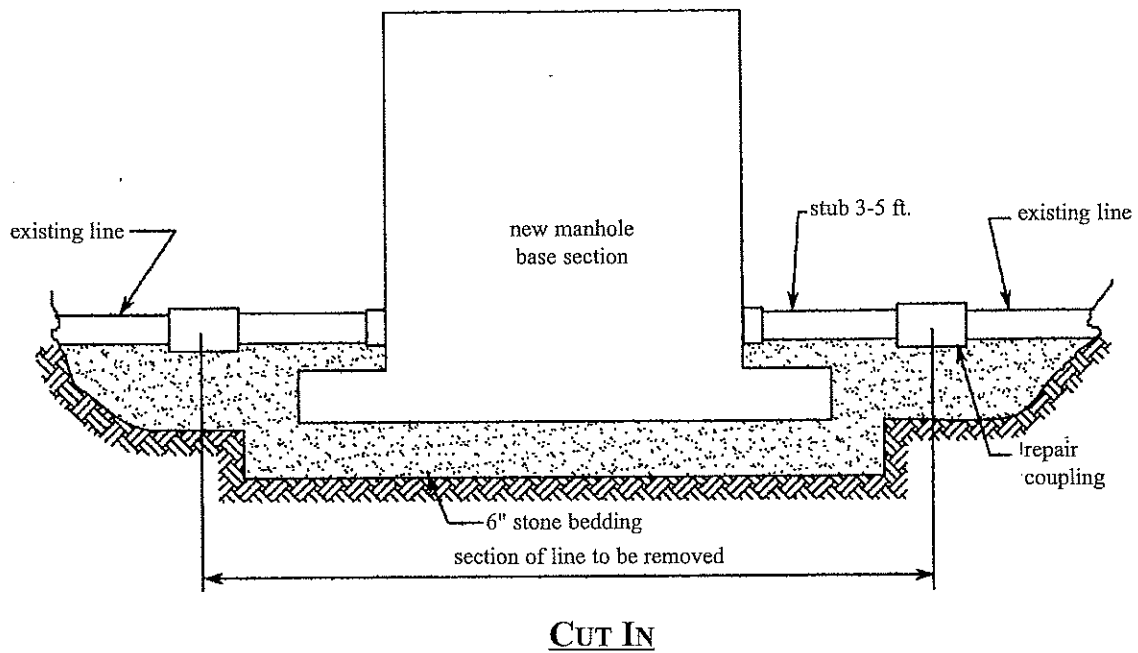


NOTES:

1. See standard details 16 and 17 for manhole requirements.
2. Incoming line to have 2.0% slope maximum.
3. Manhole penetrations to be with core and watertight connector. Core is to be at least 1'-0" clear of horizontal manhole joint.
4. Extend concrete cradle onto undisturbed trench bottom a minimum of 4 feet.
5. Refer to approved products list for additional requirements.
6. The elbow at the bottom of the stack may be either a 45 or 90 degree turned in the direction of flow. Construct channel to conform to the manhole bench.

OUTSIDE DROP MANHOLE

Figure 13

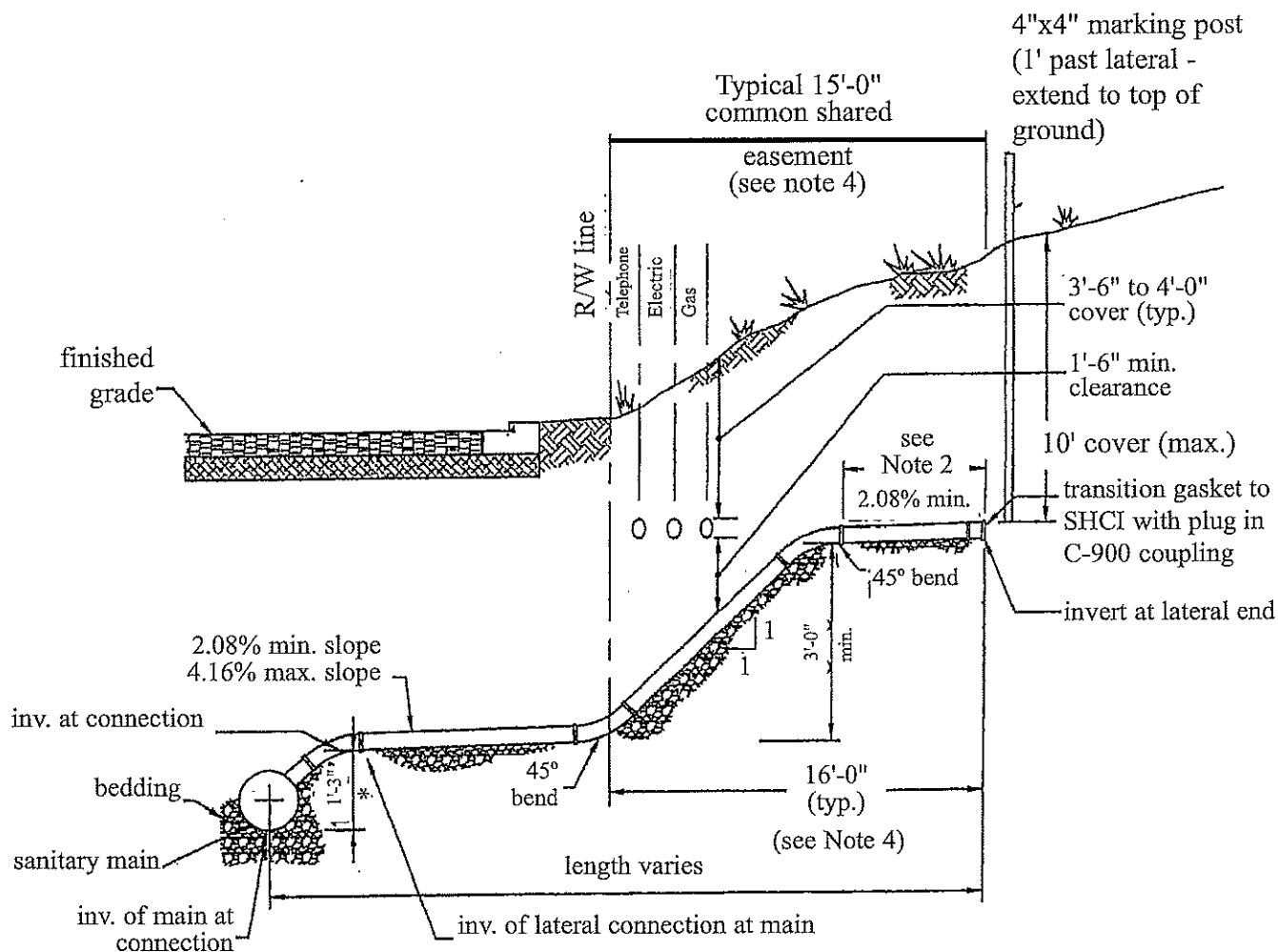


NEW MANHOLE ON EXISTING LINE

Figure 14

Town of Berryville

Water and Sewer Construction Standards and Specifications 2015



NOTES:

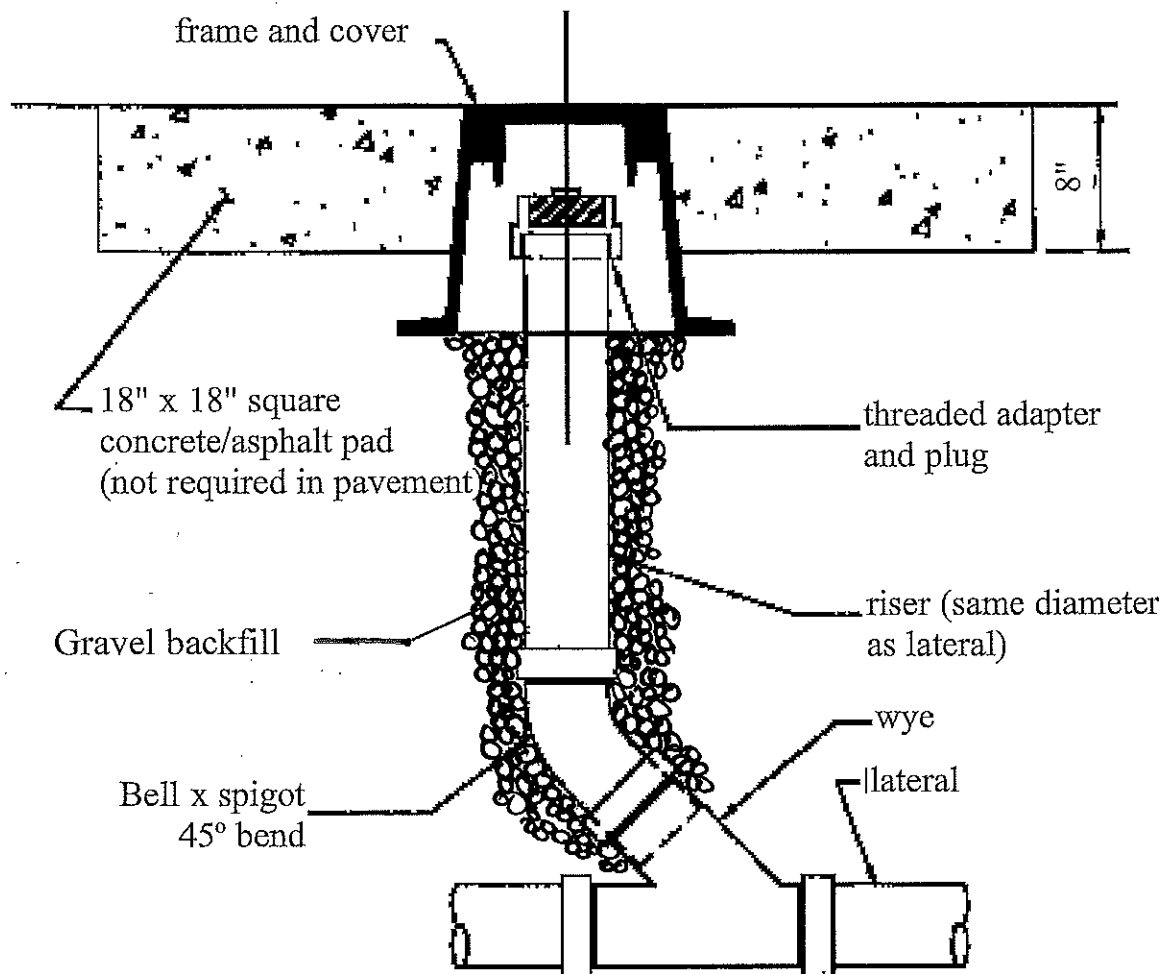
1. *Dimension based on 8" diameter sanitary sewer pipe.
2. Coupling/transition gasket to be minimum of 5' from last pipe joint.
3. Dimensions apply in public rights-of-ways.
4. Refer to approved products list for additional requirements.

GRAVITY SEWER SERVICE LATERAL

Figure 15

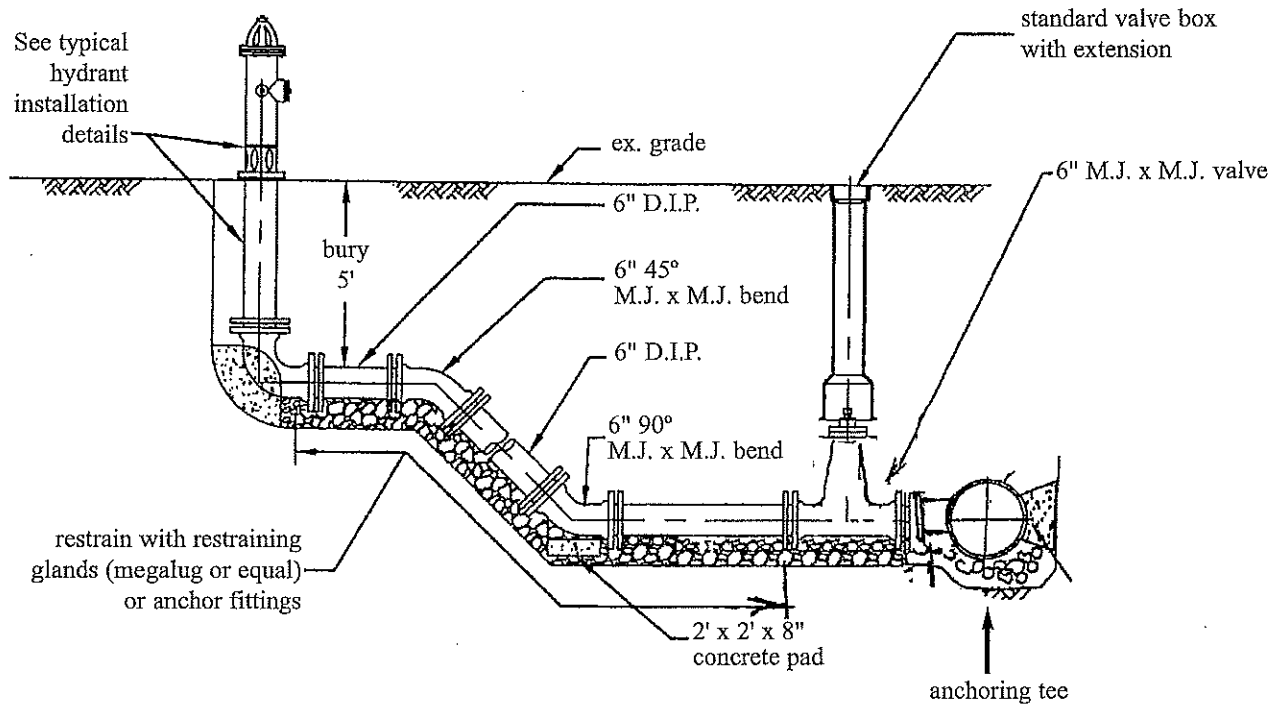
Town of Berryville

Water and Sewer Construction Standards and Specifications 2015



SEWER CLEANOUT

Figure 16

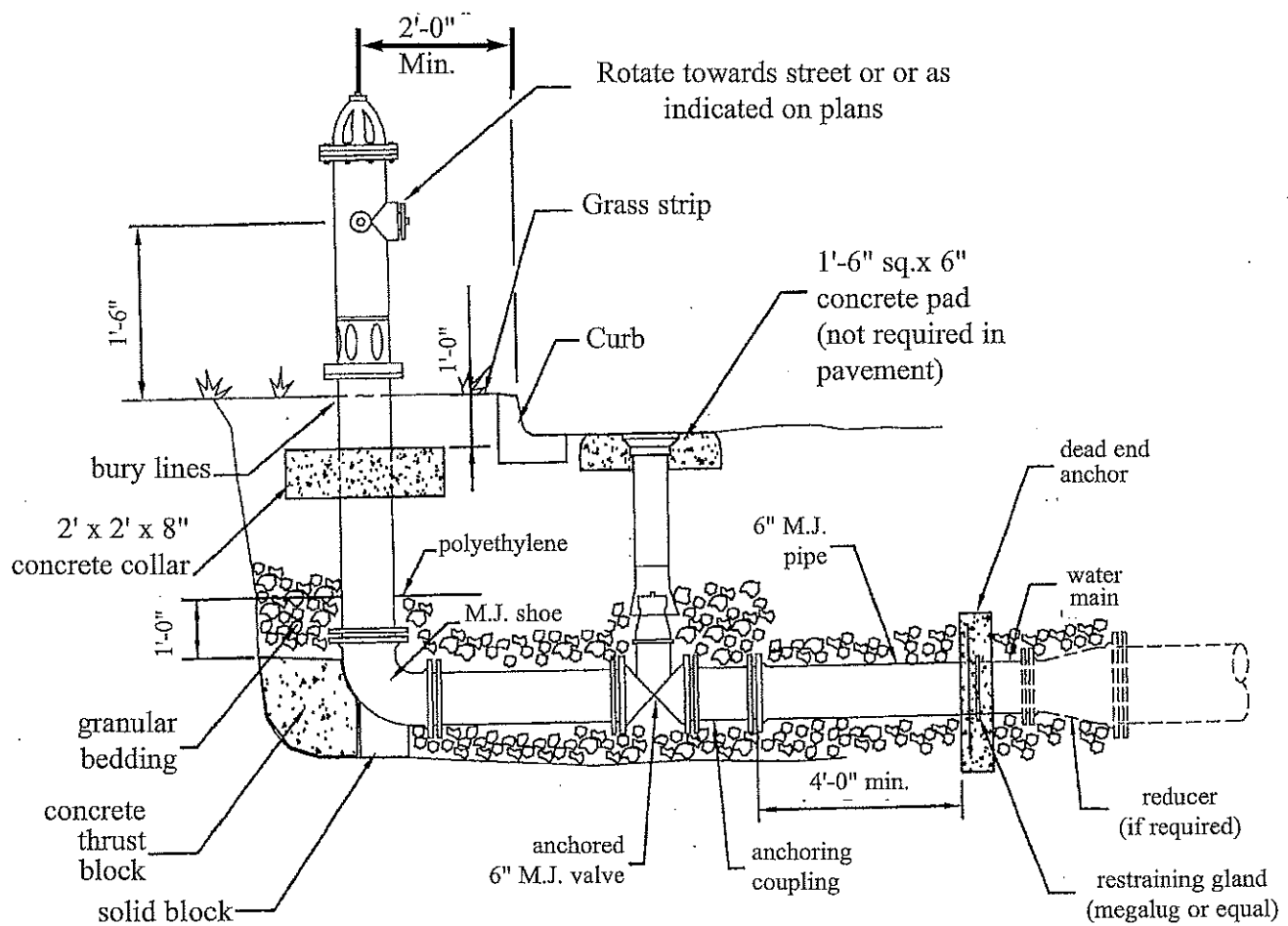


NOTES:

1. Restrain piping from dead end anchor to hydrant barrel.
2. Refer to approved products list for additional requirements.
3. Offset bends to be used where applicable.

DEEP HYDRANT Perpendicular To Main

Figure 17

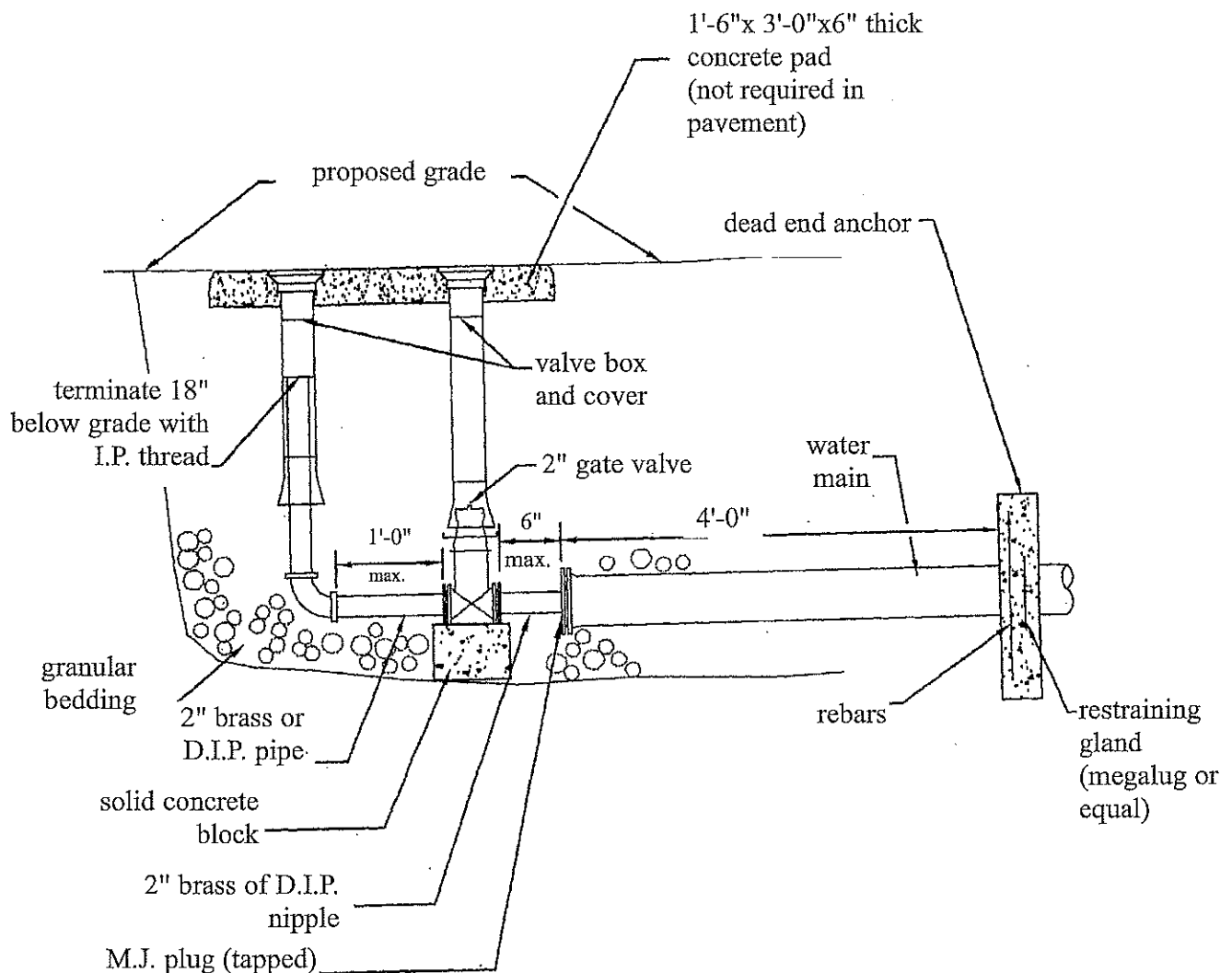


DEAD END HYDRANT ASSEMBLY

Figure 18

Town of Berryville

Water and Sewer Construction Standards and Specifications 2015



NOTES:

1. All 2" pipe to join with I.P. thread

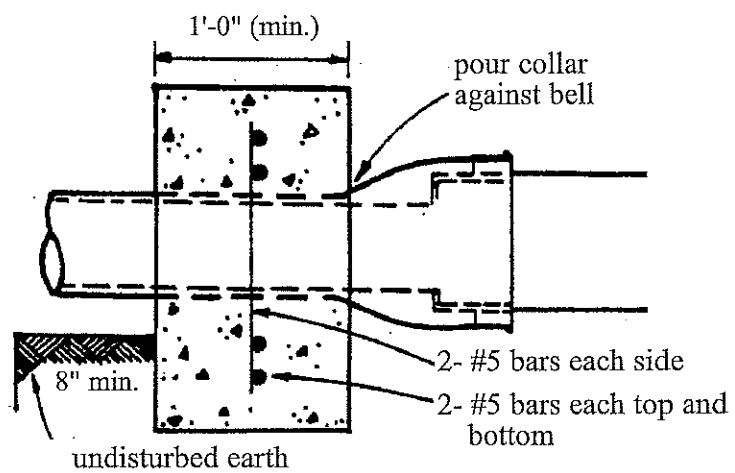
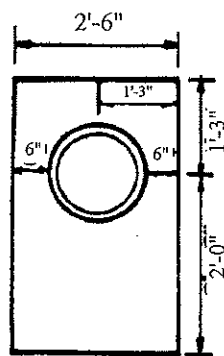
TEMPORARY BLOW OFF

Figure 20

Town of Berryville

Water and Sewer Construction Standards and Specifications 2015

anchor collar



Concrete

$F_c=3000$ PSI at 28 days

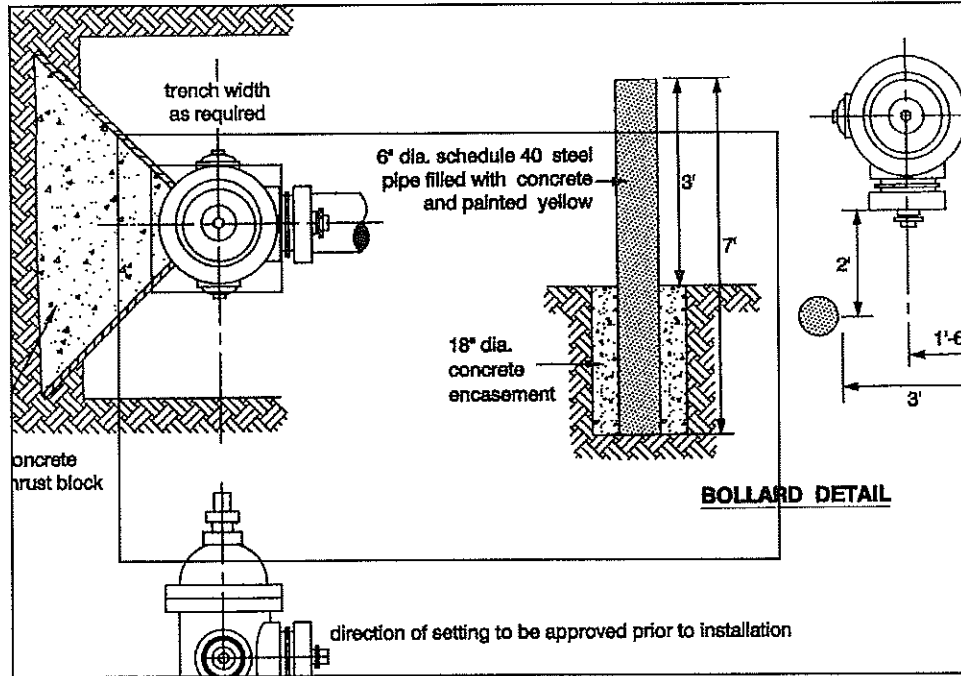
SLOPE ANCHOR

Figure 21

Town of Berryville

Water and Sewer Construction Standards and Specifications 2015

Town of Berryville



Material Specifications

April • 2015

WATER DISTRIBUTION SYSTEM * April 2015 (Listed in order of preference)

Items for Water Distribution	Manufacturer	Model #	ANSI/AWWA spec.* or other Requirement
Water lines	Griffin Atlantic States JM Eagle		C151/A121.5 AWWA C151 C0909
Fire Hydrants	Mueller Centurion American Flow Control	Super Centurion 200 B62B 4' D.O.B.	AWWA C502
Gate Valves R.S. Ductile Iron	Mueller American Flow Control	A2361 AFC 2500	AWWA C502
Swing Check Valves	Mueller American Flow Control	A 2600-6 AFC 2100	AWWA C508
Combination Air Release & Air Vacuum Valves	Valmatic Apco	VM 201 C & VM 202 C 143C & 145C	ASTM A126 Class B
Valves Boxes	Tyler Union Pipe Bingham and Taylor	564S BT 22	AWWA C110 ASTM A438-62
Bolts and Gasket Kits	Stewart Carson	S-FBK-FF-1/8 C-FBK-FF-1/8	
Mechanical Joint Fittings	Tyler Union Pipe Star	Compact	AWWA C153
Mech. Joint Restraints Mega Lug Glands	EBAA Iron Mega Lugs Ford Meter Box Co.	1100 Series 1400 Series	ASTM A536-80
Wall pipe/Sleeve/Flg Spools – Ductile Iron Pipe and Flanges	Higgins Eng. Davis K Clow		AWWA C115
Service Line Fittings	Ford Meter Box Co. Mueller	C44 Series 110 Series	compression AWWA C800
Service Tubing	Mueller Howell	HDPE	CTS 200 PSI
Threaded Fittings	Trenton Lee Brass	Red Brass Red Brass	ANSI B16.15

(Continued)

*Must meet the requirements of the ANSI/AWWA and/or ASTM standards as described.

WATER DISTRIBUTION SYSTEM * April 2015 (Listed in order of preference)

Items for Water Distribution	Manufacturer	Model #	ANSI/AWWA spec.* or other Requirement
Service Saddles	Ford Meter Box Co. FS 202 Mueller	Double Strap H10500	Stainless Steel Bands
Ball Corporation Stops	Ford Meter Box Co. Mueller	FB 1000 Series 300 Series	AWWA C800
Coppersettters			
Single Service 1½"	Ford Meter Box Co.	VBHH76-15C11-66NL	AWWA C800
Single Service 5/8"	Ford Meter Box Co.	VBHC172-12WW443NL	W/ dual bypass
Single Service 1"	Ford Meter Box Co.	VBHC174-15W444NL	check valve
Double Service 5/8"	Ford Meter Box Co.	VBHC172-12W1433NL	
Single Service 2"	Ford Meter Box Co.	VBHH77-15BHC 11-77NL	
Dual Cartridge			
Style Check	Ford Meter Box Co.	HHC Series	AWWA C800
Meter Box			
Single Service 5/8"	Mid-States Plastics	18" x 30"	ASTM D1505
Single Service 1"	Mid-States Plastics	24" x 30"	High density
Double Service 5/8"	Mid-States Plastics	36" x 36"	Polyethylene
Meter Box Insulation Pads	Mid-States Plastics	TP-18, -24, -36 Series	Polyethylene
Meter Box Covers 5/8" to 2"	Ford Meter Box Co.	Style M32C PW REC MC36 or M36	Cast Iron
Meter Box Cover	Ford Meter Box Co.	NO#1	Extensions
Extension Rings	MBC	NO 18-24	Cast Iron
Cold Water Meters	Neptune	T-10	AWWA C700
Blow-off Hydrants	Kupferle Foundary	#77	
Sampling Stations	Kupferle Foundary	NO88-WC (Eclipse)	
Mechanical Joint Connections	Infact Corporation	Foster Adaptor	
Backflow Assemblies	Ames	3000 SS	ASSE 1048
Low Hazard	Watts	709 DCA	
Backflow Assemblies	Ames	5000 SS	ASSE 1047
High Hazard	Watts	909 RPDA	

*Must meet the requirements of the ANSI/AWWA and/or ASTM standards as described.

SEWER COLLECTION SYSTEM * April 2015 (Listed in order of preference)

Items for Sewer Collection	Manufacturer	Model #	ANSI/AWWA spec.* or other Requirement
Gravity Sewer Mains PVC	J.M. Eagle	C909/905	AWWA C909 ASTM F1483
Gravity Sewer laterals 4" through 6"	National NAPCO	DR25 PVC	ASTM D3139
Force Main (PVC) 6" through 12"	J.M. Eagle	C909	AWWA C909
Force Main PVC Pressure Pipe 1½" through 4"	J.M. Eagle	C900	AWWA C900
Sewer Main Fittings Gravity	HARCO	C900 Fittings	PVC ASTM D 1784
Mechanical Joint Fittings 3" through 12"	Tyler Union Pipe Star	Compact	AWWA C153
Ball Curb Stops 2"	Ford Meter Box, Inc. Mueller	B11 Series	AWWA C800
Manhole Frames And Cover 24" diameter	Neenah	Watertight R1916-F Standard R1642	ASTM-A-48 Class 35B Gray Iron

(Continued)

*Must meet the requirements of the ANSI/AWWA and/or ASTM standards as described.

SEWER COLLECTION SYSTEM * April 2015 (Listed in order of preference)

Items for Sewer Collection	Manufacturer	Model #	ANSI/AWWA spec.* or other
Hour Meters	Cramer		
Flow Meters	Polysonics		
Pumps	Gorman-Rupp		
Ball Valve	Geneco	EST ST-3.0	ASTM A-36
Extension Stems	Trumble		84A
Gate Valves R5	AFC 2500	250 PSI R. S.	AWWA C515
Ductile Iron	Mueller A 2361	Ductile Iron	
Air Release and Air Vacuum Valve	Valmatic APCO	801 BW, 802 BW	ASTM A126 Class B
Valve Boxes	Tyler Union Bingham & Taylor	24" x 36" 36" x 48"	Cast Iron
Gate Valve	Geneco	EST ST-3.0	ASTM A-36-84A
Extension Stems	Trumble		
Clean Out Adapters and Plug	Jones Manufacturing	C.I. Clean Out Adapter	Cast Iron
Clean Out Wye Fabricated	HARCO	SDR 21 Long Sweed T-Wye	ASTMD-1784
Clean Out Frame and Cover	Capital Foundaries	Lamp Pole Frame and Cover	Cast Iron
Manhole Internal And External Chimney Seals	N.P.C., Inc. Cretex Wrapid		

*Must meet the requirements of the ANSI/AWWA and/or ASTM standards as described.

BERRYVILLE TOWN COUNCIL
MOTION FOR APPROVAL OF CONSTRUCTION STANDARDS AND
SPECIFICATIONS MANUAL AND STANDARD DETAILS AMENDMENTS

Date: April 14, 2015

Motion By:

Second By:

I move that the Council of the Town of Berryville approve the attached Construction Standards and Specifications Manual including Standard Details with allowance for modifications to Section 6.I.B. as identified in the staff report. The Material Specifications shall remain an administrative document.

VOTE:

Aye:

Nay:

Absent:

ATTEST:

Harry Lee Arnold, Jr., Recorder

Attachment 9

BERRYVILLE TOWN COUNCIL
Budget & Finance Committee
Wednesday, March 4, 2015
Berryville-Clarke County Government Center
Budget Work Session
9:30 a.m.

MINUTES

Roll:

Budget & Finance Committee:

Present: Harry Lee Arnold, Jr., Chairman; Mary Daniel

Staff: Keith Dalton, Town Manager; Desirée Moreland, Assistant Town Manager/Treasurer, W. Neal White, Chief of Police

Press: Val VanMeter, Winchester Star

1. **Call to Order** – Harry Lee Arnold, Jr., Chairman
Chairman Arnold called the meeting to order at 9:30 a.m.

2. **Discussion** – Budget Finance/CIP Committee
Staff gave an overview of proposed budget revenues which include recommended increases in Personal Property (\$1.05/\$100 to \$1.25/\$100) and Real Estate (\$.136/\$100 to \$.19/\$100) tax rates, Water Treatment Fees (\$8.00 TG to \$8.40) and the addition of a 4% Lodging Tax.

There was a discussion of the additional revenue sources in the General Fund.

Staff discussed proposed expenses. A 2.5% COLA payroll increase is proposed with select market adjustments; health care costs increased 9.73%. In order to balance the budget the vacant police position was reduced to part-time and the purchase of new police software and an upgrade to their server was deferred until FY 16-17.

Mr. Dalton discussed the 5 year CIP and spoke about the General Fund Revenue challenges.

The Committee instructed staff to reinstate the full-time police position and move the software purchase and server upgrade back into the FY 15-16 Budget. In order to fund these item staff was asked to re-evaluate the proposed Real Estate (\$.19 /\$100 to \$.23/\$100) tax increase.

3. **Adjourn**

There being no further business, on motion by Chairman Arnold, seconded by Council member Daniel the work session was adjourned at 11:30 a.m. until Wednesday, March 11, 2015 at 9:30 a.m.

**BERRYVILLE TOWN COUNCIL
Budget & Finance Committee
Wednesday, March 11, 2015
Berryville-Clarke County Government Center
Budget Work Session
9:30 a.m.**

MINUTES

Roll:

Budget & Finance Committee:

Present: Harry Lee Arnold, Jr., Chairman; Mary Daniel

Staff: Keith Dalton, Town Manager; Desirée Moreland, Assistant Town Manager/Treasurer, W. Neal White, Chief of Police

Press: Val VanMeter, Winchester Star

1. **Call to Order** – Harry Lee Arnold, Jr., Chairman
Chairman Arnold called the meeting to order at 9:43 a.m.

2. **Discussion** – Budget Finance/CIP Committee
Staff gave an overview of revised budget revenues which include a recommended increase in proposed Real Estate (\$.136/\$100 to \$.23/\$100) tax rates.

Revised expenses reflect the proposed part-time police position restored to full-time and the police department software purchase and server upgrade returned to the FY 15-16 Budget.

Chairman Arnold asked that \$3,300 be added to Police Supplies (100-4031100-6010) for the purchase of a portable AED unit if grant funding does not become available.

Chairman Arnold asked that Mr. Dalton contact Rappahannock Electric Cooperative and inquire into the cost of converting the current street lights to LED lights.

3. **Adjourn**
There being no further business, on motion by Chairman Arnold, seconded by Council member Daniel the work session was adjourned at 11:00 a.m.

Attachment 10

FINANCE AND ADMINISTRATION STAFF REPORT

TO: TOWN COUNCIL
FROM: DESIREE MORELAND, TREASURER
SUBJECT: TAX RATES / BUDGET
DATE: 4/9/2015
CC: KEITH DALTON, TOWN MANAGER

At the April 14th meeting we need to:

- Set Real Estate, Personal Property and Machinery & Tools tax rates for 2015
- Set PPTRA rate for 2015
- Adopt Transient Occupancy Tax effective July 1, 2015
- Set Water rate effective June 24, 2015
- Amend Water and Sewer Rate Schedule effective June 24, 2015
- Set a Public Hearing for May 12, 2015 for the FY15-16 Budget

If you have any questions please call me.

TOWN COUNCIL
MOTION FOR APPROVAL: ORDINANCE SETTING TAX LEVIES FOR TAX
YEAR 2015

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville adopt the attached Ordinance setting the tax levies for tax year 2015 amending the Code of the Town of Berryville, Chapter 16- Taxation, Article I – In General, Section 16-1 Annual Tax Assessments; valuation of property.

VOTE:

Aye:

Nay:

Absent/Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

TOWN OF BERRYVILLE
TOWN COUNCIL
AN ORDINANCE SETTING TAX LEVIES FOR TAX YEAR 2015

Date: April 14, 2015

Motion By:

Second By:

BE IT ORDAINED, by the Council of the Town of Berryville, Virginia, that for the tax year 2015 there is hereby levied:

(1) A tax of \$.21 per \$100 assessed valuation on all real estate located within the Town of Berryville, such levy being also applicable to the real estate and tangible personal property of public service corporations;

(2) A tax rate of \$1.25 per \$100 assessed valuation on all taxable, tangible personal property, except machinery and tools, located in the Town of Berryville;

(3) A tax rate of \$1.30 per \$100 assessed valuation on tangible machinery and tools located in the Town of Berryville.

All tax levies shall be due and payable pursuant to the Code of the Town of Berryville, Chapter 16, Article I, Section 16-3.

VOTE:

Aye:

Nay:

Absent:

SIGNED: _____
Wilson L. Kirby, Mayor

Date: April 14, 2015

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

Date: April 14, 2015

TOWN COUNCIL
MOTION FOR APPROVAL: AN ORDINANCE PRESCRIBING WATER SERVICE CHARGES
PURSUANT TO CHAPTER 17, ARTICLE IV, SECTION 17-49
OF THE CODE OF THE TOWN OF BERRYVILLE

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville adopt the attached Ordinance prescribing water service charges pursuant to Chapter 17, Article IV, Section 17-49 of the Code of the Town of Berryville.

VOTE:

Aye:

Nay:

Absent/Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

TOWN OF BERRYVILLE
AN ORDINANCE PRESCRIBING WATER SERVICE CHARGES
PURSUANT TO CHAPTER 17, ARTICLE IV, SECTION 17-49
OF THE CODE OF THE TOWN OF BERRYVILLE

Date: April 14, 2015

Motion By:

Second By:

BE IT ORDAINED, by the Council of the Town of Berryville, pursuant to Chapter 17, Article IV, Section 17-49 of the Code of the Town of Berryville, that effective June 24, 2015 charges for water services rendered by the Town of Berryville shall be eight dollars and forty cents (\$8.40) per one thousand (1000) gallons of water used. For those customers using less than a thousand gallons a minimum fee of five dollars (\$5.00) per month will be charged.

VOTE:

Aye:

Absent:

Abstain:

SIGNED: _____
Wilson Kirby, Mayor

DATE: April 8, 2014

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

DATE: April 8, 2014

Attachment 11

TOWN COUNCIL
MOTION FOR APPROVAL: RESOLUTION TO PROVIDE FOR THE
IMPLEMENTATION OF THE 2004-2005 CHANGES TO THE PERSONAL
PROPERTY TAX RELIEF ACT OF 1998 FOR THE TAX YEAR 2015

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville adopt the attached Resolution providing for the implementation of the 2004-2005 changes to the Personal Property Tax Relief Act of 1998 for the tax year 2015.

VOTE:

Aye:

Nay:

Absent/Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

Town of Berryville

Resolution

**To Provide for the Implementation of the 2004-2005
Changes to the Personal Property Tax Relief Act of 1998
For the Tax Year 2015**

WHEREAS, the Personal Property Tax Relief Act of 1998, Va. Code § 58.1-3523 *et seq.* ("PPTRA"), has been substantially modified by the enactment of Chapter 1 of the Acts of Assembly, 2004 Special Session I (Senate Bill 505) and the provisions of Item 503 of Chapter 951 of the 2005 Acts of Assembly, being the 2005 revisions to the 2004-2006 Appropriations Act ("the 2005 Appropriations Act"); and

WHEREAS, the legislative enactments require the Town to take affirmative steps to provide for the computation and allocation of relief provided pursuant to the PPTRA as revised; and

WHEREAS, these legislative enactments provide for the Town of a fixed sum to be used exclusively for the provision of tax relief to owners of qualifying personal use vehicles that are subject to local personal property tax on such vehicles.

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Berryville in accordance with the requirements set forth in Va. Code § 58.1-3524(C) (2) and § 58.1-3912(E), as amended by Chapter 1 of the 2005 Acts of Assembly (2004 Special Session 1) and as set forth in Item 503 of the 2005 Appropriations Act, that any qualifying vehicle having situs within the Town during the tax year which begins on January 1, 2015, shall receive personal property tax relief in the following manner:

1. Personal use vehicles valued at less than \$1,000 will be eligible of 100 percentage of tax relief set by the Town Council during its annual budget deliberations.
2. Personal use vehicles valued between \$1,001 and \$20,000 will be eligible for 70 percentage of tax relief set by the Town Council during its annual budget deliberations.
3. Personal use vehicles valued at \$20,001 or more will be eligible for 70 percentage of tax relief on the first \$20,000 of assessed value set by the Town Council during its annual budget deliberations.
4. All other vehicles which do not meet the definition of "qualifying" (business use vehicles, farm use vehicles, motor homes, etc.) will not be eligible for personal property tax relief under PPTRA.

PASSED THIS 14TH DAY OF APRIL 2015.

Wilson L. Kirby, Mayor

ATTEST:

Harry L. Arnold, Jr., Recorder

Attachment 12

TOWN COUNCIL
MOTION FOR APPROVAL: ORDINANCE ADOPTING
A TRANSIENT OCCUPANCY TAX

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville adopt the attached Ordinance establishing a Transient Occupancy Tax effective July 1, 2015.

VOTE:

Aye:

Nay:

Absent:

Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

ARTICLE VII. - TRANSIENT OCCUPANCY TAX

Sec. 16-101. - Definitions.

Sec. 16-102. - Penalty for violation.

Sec. 16-103. - Amount and levy.

Sec. 16-104. - Collection.

Sec. 16-105. - Administrative guidelines.

Sec. 16-106. - Reports and remittances.

Sec. 16-107. - Exemptions.

Sec. 16-108. - Advertising payment or absorption of tax.

Sec. 16-109. - Penalty and interest for failure to remit taxes when due.

Sec. 16-110. - Procedure upon failure or refusal to collect taxes or make remittances and reports.

Sec. 16-111. - Preservation of records.

Sec. 16-112. - Cessation of business; report and tax due immediately.

Sec. 16-101. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Hotel shall mean any public or private hotel, inn, apartment hotel, bed and breakfast, hostelry, tourist home or house, motel, rooming house or other lodging place within the town offering lodging for two or more persons at any one time, and the owner and operator thereof, who, for compensation, furnishes lodging to any transients.

Room or space rental shall mean the total charge made by any hotel or travel campground for lodging or space furnished any transient. If the charges made by such hotel or travel campground to transients includes any charge for services or accommodations, in addition to that of lodging, and the use of space, then such portion of the total charge as represents only room and space rental shall be distinctly set out and billed to such transient by such hotel or travel campground as a separate item.

Town shall mean Town of Berryville, Virginia.

Transient shall mean any natural person who, for any period of not more than 30 consecutive days, either at his own expense or at the expense of another, obtains lodging or the use of any space in any hotel or travel campground for which lodging or use of space a charge is made.

Travel campground means any area or tract of land used to accommodate two or more camping parties, including tents, travel trailers or other camping outfits.

Sec. 16-102. - Penalty for violation.

Any person violating or failing to comply with any of the provisions of this article shall be guilty of a class 3 misdemeanor. Each such violation or failure and each day's continuance thereof shall constitute a separate offense. Such conviction shall not relieve any such person from the payment, collection or remittance of the tax as provided in this article.

Sec. 16-103. - Amount and levy.

There is hereby imposed and levied by the town, in addition to all other taxes, fees, and charges of every kind, now or hereafter imposed by law, a tax in the amount of four percent of the total amount paid for room or space rental to any hotel or travel campground.

Sec. 16-104. - Collection.

Every person receiving any payment of room or space rental with respect to which a tax is levied under this article, shall collect the amount of tax hereby imposed from the transient on whom the same is levied or from the person paying for such room or space rental, at the time payment for such rooms or space is made, and the tax shall be paid to the town.

Sec. 16-105. – Delegation of Administration

The town treasurer is hereby delegated the authority to administer all provisions of this article.

Sec. 16-106. - Reports and remittances.

The person collecting any tax levied under this article shall make out a report upon forms, setting forth information as the town treasurer may prescribe and require, showing the amount of room or space rental charges collected and the tax required to be collected, and shall sign and deliver the same, along with a remittance of such tax, to the town treasurer. Such reports and remittances shall be made to the town treasurer on or before the 20th day of the calendar month following the month being reported.

Sec. 16-107. - Exemptions.

No tax shall be payable under this article on room or space rental paid to any hospital, medical clinic, convalescent home or home for the aged. No tax shall be payable under this article on individually owned single-family homes or condominium units which are rented through an agency which provides advertising, reservations, housekeeping, accounting, and/or check-in services.

Sec. 16-108. - Advertising payment or absorption of tax.

No person shall advertise or hold out to the public in any manner, directly or indirectly, that all or any part of a tax imposed under this article will be paid or absorbed by him or by anyone else, or that he or anyone else will relieve any purchaser of the payment of all or any part of such tax.

Sec. 16-109. - Penalty and interest for failure to remit taxes when due.

If any person whose duty it is to do so shall fail or refuse to remit to the town treasurer the tax required to be collected under this article, within the time and in the amount specified in this article, there shall be added to such tax by the town treasurer a penalty as set from time to time by the town council. In addition, there shall be added to such unpaid tax interest at a rate as set from time to time by the town council on the amount of tax delinquent, such interest to commence on the first day of the month following the month in which such taxes are due. For the second and subsequent years of delinquency, interest shall be imposed at the rate established pursuant to section 6621 of the Internal Revenue Code of 1954, as amended, or at a rate as set from time to time by the town council, whichever is greater.

Sec. 16-110. - Procedure upon failure or refusal to collect taxes or make remittances and reports.

If any person whose duty it is to do so shall fail or refuse to collect the tax imposed under this article or to make within the time provided in this article the reports and remittances required by this article, the town treasurer shall proceed in such a manner as he may deem best to obtain the facts and information as he is able to obtain upon which to base the assessment of any tax payable by any person who has failed or refused to collect such tax or to make such report and remittance. The town treasurer shall proceed to determine and assess against

such person such tax and penalty by registered mail at his last known place of address of the amount of such tax and interest and penalty and the total amount thereof shall be payable within ten days from the date of such notice.

Sec. 16-111. - Preservation of records.

It shall be the duty of every person required by this article to pay to the town the taxes imposed by the article to keep and to preserve for a period of two years records showing all purchases taxable under this article, the amount charged the purchaser for each purchase, the date thereof, the taxes collected thereon and the amount of tax required to be collected by this article. The town treasurer or duly authorized agents shall have the power to examine such records at reasonable times and without unreasonable interference with the business of such person, for the purpose of administering and enforcing the provisions of this article and to make transcripts of all or any parts thereof.

Sec. 16-112. - Cessation of business; report and tax due immediately.

Whenever any person required to collect and pay to the town a tax under this article shall cease to operate and shall otherwise dispose of his business, any tax payable under the provisions of this article shall become immediately due and payable. Such person shall immediately make a report and pay the tax due.

Attachment 13

TOWN COUNCIL
MOTION FOR APPROVAL: AMEND THE
SCHEDULE OF WATER AND SEWER FEES AND CHARGES

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville amend the attached Schedule of Water and Sewer Fees and Charges to reflect the water and sewer user fees effective June 24, 2015.

VOTE:

Aye:

Nay:

Absent/Abstain:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

**TOWN OF BERRYVILLE
SCHEDULE OF WATER AND SEWER FEES
AND CHARGES**

Effective June 24, 2015

I. USER FEES

A. WATER

~~\$8.00~~ **8.40** per 1,000 gallons of usage
\$5.00 per month minimum charge

B. SEWER

\$ 17.00 per 1,000 gallons of usage
\$ 15.00 per month minimum charge

II. DEPOSITS AND ADMINISTRATIVE FEES

A. DEPOSITS

Residential: \$ 225

Business/Commercial (excluding Restaurants and Laundries): \$ 860

Restaurant: \$ 785

Laundry: \$2,450

B. ADMINISTRATIVE FEES

Late Fee: 10% of bill amount

Service Disconnection/Reconnection Fee: \$40

Returned Check/ACH Fee \$25

III. AVAILABILITY FEES

A. WATER

Type of Premises

Charge

I. Residential:

Single Family Residential individual 5/8" meter \$ 5,250 + meter charge

Town House, Duplex individual 5/8" meter 5,250 per unit + meter
charge

Multi-Family 4,725 per unit + meter
charge

2. Commercial, Industrial, Institutional, & Single Family greater than 5/8" meter:

Water Meter Size (Inches)	Demand Ratio	Avail. Fee	Radio Read Meter Cost
5/8	1.0	\$ 5,250	Meter cost + 30% admin. fee
3/4	1.5	7,825	Meter cost + 30% admin. fee
1.0	2.5	13,125	Meter cost + 30% admin. fee
1.5	4.375	22,970	Meter cost + 30% admin. fee
2.0	8.0	42,000	Meter cost + 30% admin. fee
3.0	16.0	84,000	Meter cost + 30% admin. fee
4.0	25.0	131,250	Meter cost + 30% admin. fee
6.0	50.0	262,500	Meter cost + 30% admin. fee
Greater than 6", Demand Ratio (AWWA M22) multiplied by fee for Demand Ratio 1			

Notes:

- (a) Multi-family residences are defined as any master metered group of apartment, town house, condominium or other residential units with each unit containing separate kitchen facilities.
- (b) In cases where a master meter is serving multi-family residences or a combination of multi-family and commercial units, the applicant will pay a fee based on the higher of (a) an amount derived by multiplying the unit charge of \$5,250 for multi-family residence times the total number of residential and commercial units to be served by a single meter, or (b) an amount based on the meter size as specified above.

B. SEWER

Water Meter Size (Inches)	Demand Ratio	Avail. Fee
5/8	1.0	\$ 22,750
3/4	1.5	34,125
1.0	2.5	56,875
1.5	4.375	99,535
2.0	8.0	182,000
3.0	16.0	364,000
4.0	25.0	568,750
6.0	50.0	1,137,500
Greater than 6", Demand Ratio (AWWA M22) multiplied by fee for Demand Ratio 1		

IV. **LATERAL or CONNECTION FEES**

A. WATER

Meter Size (Inches)	By Others	By Town
5/8	* (b)	cost + 10% (\$500 min.) & b
3/4	* (b)	cost + 10% (\$500 min.) & b
1.0	* (b)	cost + 10% (\$500 min.) & b
1.5	* (b)	(c) & (b)
2.0	* (b)	(c) & (b)

3.0	* (a) & (b)	(a) & (b)
4.0	* (a) & (b)	(a) & (b)
6.0	* (a) & (b)	(a) & (b)
Greater than 6"	* (a) & (b)	(a) & (b)

B. SEWER

Lateral	By	By
<u>Size (Inches)</u>	<u>Others</u>	<u>Town</u>
4	*	cost + 10% (\$500 min.)
Greater than 4"	*	N/A (d)

Notes:

(a) = Town of Berryville to furnish and install wet taps to existing mains at cost plus 10%. Contractor to furnish and install lines and vaults.

(b) = Town of Berryville to install meters.

(c) = Town of Berryville to provide 2" service line to property line with 2" ball valve at cost plus 10%. Contractor to furnish and install meter vault and meter setter.

(d) = Installed by contractor if larger than 4" required.

* = Inspection fee applies, see Section V.

V. **INSPECTIONS**

A. Sanitary Sewer Camera Service & Storm Sewer Camera Service

Mains and Laterals Over 4-Inches in Diameter

Mobilization Fee \$250

Camera Fee \$2.50 per linear foot

4-Inch Laterals

Laterals Under 50-Feet in Length \$100

Laterals 50-Feet in Length or Greater \$100 plus \$2.50 per linear

foot

B. Inspections

Approved Inspector or Town Staff..... \$ 50 per hour Licensed

Professional Engineer cost

Notes:

Cleaning lines will be required prior to camera use and is the responsibility of the applicant.

VI. **SIGNIFICANT INDUSTRIAL USER FEES**

Sewer system discharge permit\$500

VII. **WATER METER TESTING**

5/8" meter~~\$40~~ 100

All other meters\$40 100 + cost

Notes: Fee is refunded if meter is found to be over registering

VIII. UNAUTHORIZED USE OF SERVICE

For unapproved water withdrawals from fire hydrants or any other part of the Town Water System, or when a customer willfully takes steps to reactivate service after service has been disconnected by the town on account of nonpayment of any charge owed to the town and the town is required to take some action to again discontinue service, such as removing the meter, etc., a charge for unauthorized use of service in the amount of two hundred and fifty dollars (\$250) shall be paid. This charge shall be in addition to any other charge for water and sewer utility services owed to the town, as well as any other legal remedies which the town may be able to pursue for unauthorized use of service.

Attachment 14

TOWN COUNCIL
MOTION FOR SETTING A PUBLIC HEARING
ON THE PROPOSED FY 2016 BUDGET

Date: April 14, 2015

Motion By:

Second By:

I hereby move that the Council of the Town of Berryville set a public hearing for May 12, 2015, at 7:30 p.m. in order to hear public comment on the proposed FY 2016 budget.

VOTE:

Aye:

Nay:

Absent:

ATTEST: _____
Harry Lee Arnold, Jr., Recorder

Attachment 15

FINANCE AND ADMINISTRATION STAFF REPORT

TO: TOWN COUNCIL
FROM: DESIREE MORELAND, TREASURER
SUBJECT: CIGARETTE TAX ORDINANCE REVISIONS
DATE: 4/10/2015
CC: KEITH DALTON, TOWN MANAGER

While implementing the new Cigarette Tax Ordinance we have identified a few gaps in the enforcement end.

- We have revised the ordinance to include the **Definition** of Wholesale Dealers (§ 16-70)
- Expanded the **Delegation of Administration** (§ 16-73) to address business inspections and appointment of agents.
- Section 16-77 **Registered Agents** now identifies the cigarette tax as a "trust tax".
- Section 16-77 has been reassigned to define **Requirements for Retail Dealers**
- Sections 77 through 86 have been renumbered.
- Section 16-84 **Penalty for Violation**, now explains that any fine and/or imprisonment shall not relieve any such person from the payment of any tax, penalty or interest imposed by this article.

If you have any questions please call me.

ARTICLE VII. - CIGARETTE TAX

Sec. 16-71. - Definitions.

Sec. 16-72. - Levy and rate.

Sec. 16-73. - Delegation of administration.

Sec. 16-74. - Methods of collection.

Sec. 16-75. - Registered agents.

Sec. 16-76. - Notice of intention by retail dealers.

Sec. 16-77. - Requirements for retail dealers

Sec. 16-78. - Sale of cigarettes in vending machines; contraband.

Sec. 16-79. - Illegal acts.

Sec. 16-80. - Jeopardy assessment.

Sec. 16-81. - Erroneous assessment; notices and hearings in the event of sealing of vending machines or seizure of contraband property.

Sec. 16-82. - Disposal of seized property.

Sec. 16-83. - Extensions.

Sec. 16-84. - Penalty for violation of article.

Sec. 16-85. - Each violation a separate offense.

Sec. 16-86. - Severability.

Sec. 16-71. - Definitions.

For the purpose of this article, the following words and phrases shall have the meanings respectively ascribed to them by this section.

Carton shall mean any container, regardless of material used in its construction, in which ten packages of 20 cigarettes are placed.

Cigarette shall mean and include any roll of any size or shape for smoking, whether filtered or unfiltered, with or without a mouthpiece, made wholly or partly of cut, shredded or crimped tobacco or other plant or substitute for tobacco, whether the same is flavored, adulterated or mixed with another ingredient, if the wrapper or cover is made of any material other than leaf tobacco or homogenized leaf tobacco, regardless of whether the roll is labeled or sold as a cigarette or by any other name.

Dealer shall mean and include every manufacturer's representative, self wholesaler, retailer, vending machine operator, public warehouseman or other person who shall sell, receive, store, possess, distribute or transport cigarettes within or into the town.

Package shall mean and include any container, regardless of the material used in its

construction in which separate cigarettes are placed without such cigarettes being placed into any container within the package. Packages are those containers of cigarettes from which they are consumed by their ultimate user. Ordinarily a package contains 20 cigarettes; however, "package" includes those containers in which fewer or more than 20 cigarettes are placed.

Person shall mean and include any individual, firm, unincorporated association, company, corporation, joint stock company, group, agency, syndicate, trust or trustee, receiver, fiduciary, partnership and conservator. The word "person" as applied to a partnership, unincorporated association or other joint venture means the partners or members thereof, and as applied to a corporation shall include all the officers and directors thereof.

Place of business shall mean and include any place where cigarettes are sold, placed, stored, offered for sale or displayed for sale or where cigarettes are brought or kept for the purpose of sale, consumption or distribution, including vending machines, by a dealer within the town.

Registered agent shall mean and include every dealer and other person who shall be required to report and collect the tax on cigarettes under the provisions of this article.

Retail dealer shall mean and include every person who, in the usual course of business, purchases or receives cigarettes from any source whatsoever for the purpose of sale within the town to the ultimate consumer; or any person who, in the usual course of business, owns, leases, or otherwise operates within his own place of business, one or more cigarette vending machines for the purpose of sale within the town of cigarettes to the ultimate consumer; or any person who, in any manner, buys, sells, stores, transfers, or deals in cigarettes for the purpose of sale within the town to the ultimate consumer, who is not licensed as a wholesaler, or vending machine operator.

Sale or sell shall mean and include every act or transaction, regardless of the method or means employed, including barter, exchange, or the use of vending machines or other mechanical devices or a criminal or tortuous act whereby either ownership or possession, or both, of any cigarettes shall be transferred within the town from a dealer as herein defined to any other person for a consideration.

Stamp shall mean a small gummed piece of paper or decal used to evidence provision for payment of the tax as authorized by the board-town required to be affixed to every package of cigarettes sold, distributed, or used within the town.

Store or storage shall mean and include the keeping or retention of cigarettes in this town for any purpose except sale in the regular course of business.

Town shall mean Town of Berryville, Virginia.

Use shall mean and include the exercise of any right or power over any cigarettes or packages or cigarettes incident to the ownership or possession of those cigarettes or packages of cigarettes including any transaction where possession is given or received or otherwise transferred, other than a sale.

User shall mean any person who exercises any right or power over any cigarettes or packages of cigarettes subject to the provisions of this article incident to the ownership or possession of those cigarettes or packages of cigarettes or any transaction where possession is given or received or otherwise transferred, other than a sale.

Wholesale Dealers shall mean any individual, partnership, or corporation engaged in the sale of packages of cigarettes for resale into or within the town.

Sec. 16-72. - Levy and rate.

In addition to all other taxes of every kind now or hereinafter imposed by law, there is hereby levied and imposed by the town upon every person who sells or uses cigarettes within the town from and after the effective date of this article an excise tax equivalent to \$.10 for each package containing 20 cigarettes or less. The tax shall be paid and collected in the manner and at the time hereinafter prescribed; provided, that the tax payable for each cigarette package sold or used within the town shall be paid but once. The tax hereby levied shall not apply to free distribution of sample cigarettes in packages containing five or fewer cigarettes.

Sec. 16-73. - Delegation of administration.

- (a) The town treasurer is hereby delegated the authority to administer all provisions of this article.
- (b) The town treasurer is authorized to promulgate such rules and regulations, as it deems appropriate, governing:
 - (1) The display of cigarette stamps in vending machines;
 - (2) The placement of tax liens against property of taxpayers hereunder;
 - (3) The extending of varying discount rates;
 - (4) The establishing of different classes of taxpayers or those required to collect and remit the tax;
 - (5) The requirements concerning keeping and production of records;
 - (6) The administrative and jeopardy assessment of tax where reasonably justified;
 - (7) The required notice to authorities of sale of taxpayer's business;
 - (8) The audit requirements and authority;
 - (9) The criteria for authority of distributors and others to possess untaxed cigarettes;
 - (10) Any and all powers granted by the provisions of the Code of Virginia of 1950, as amended, or necessarily implied therefrom.
- (c) The town treasurer, is authorized to:
 - (1) Issue a common revenue stamp;
 - (2) Bring appropriate court action in its own name where necessary to enforce payment of the cigarette taxes or penalties;
 - (3) Provide cigarette tax agents and the necessary enforcement supplies and equipment needed to effectively enforce the cigarette tax ordinance.
 - (4) To conduct inspections of any place of business in order to enforce the provision of this ordinance.
 - (5) To appoint certain employee as Tobacco Revenue Agents, who shall be required to carry proper identification while performing their duties. Tobacco Revenue Agents are further authorized to conduct inspections of any place of business and shall have the power to seize or seal any vending machine, seize any cigarettes, counterfeit stamps or other property found in violation of this article and shall have the power of arrest upon reasonable suspicion and probable cause that a violation of this article has been committed.

Sec. 16-74. - Methods of collection.

- (a) The tax imposed by this article shall be evidenced by the use of a stamp and shall be paid by each dealer or other person liable for the tax under a reporting method deemed by the town to carry out the provisions of this article. The stamps shall be affixed in such a manner that their removal will require continued application of water or stream. Each dealer or other person liable for the tax is hereby required, and it shall be his duty, to collect and pay the tax and report separately for packages of 20 cigarettes on forms prescribed for this purpose by the town:

- (1) The quantity of town-stamped cigarettes sold or delivered to:
- a. Each registered agent appointed by the town for which no tax was collected;
 - b. Each manufacturer's representative; and

REVISED DRAFT

- c. Each separate person and place of business within the town during the preceding calendar or fiscal month; and
- (2) The quantity of town stamps on hand, both affixed and unaffixed on the first day and the last day of the preceding calendar or fiscal month and the quantity, of town stamps or town stamped cigarettes received during the preceding calendar or fiscal month; and
 - (3) The quantity of cigarettes on hand to which the town stamp had not been affixed on the first and last day of the preceding calendar or fiscal month and the quantity of cigarettes received during the preceding calendar or fiscal month to which the town stamp had not be affixed; and
 - (4) Such further information as the administrator for the town may require for the proper administration and enforcement of this article for the determination of the exact number of cigarettes in the possession of each dealer or user.
- (b) Each dealer or other person liable for the tax shall file such reports with the town and pay the tax due to the town between the first and twentieth day after the close of each calendar or fiscal month, and shall furnish a copy of any cigarette tax reports submitted to the Virginia Department of Taxation for the previous month.
- (c) When, upon examination and audit of any invoices, records, books, cancelled checks or other memoranda touching on the purchase, sale, receipt, storage or possession of tobacco products taxed herein, any dealer or other person liable for the tax is unable to furnish evidence to the town of sufficient tax payments and stamp purchases to cover cigarettes which were sold, used, stored, received, purchased or possessed by him, the prima facie presumption shall arise that such cigarettes were received, sold, used, stored, purchased or possessed by him without the proper tax having been paid. The town shall, from the results of such examination and audit based upon such direct or indirect information available, assess the tax due and unpaid and impose a penalty of ten percent and interest of ten percent per annum of the gross tax due.
- (d) When any dealer or other person liable for the tax files a false or fraudulent report or fails to file a report or fails to perform any act or performs any act to evade payment of the tax, the town shall administratively assess the tax due and unpaid and impose a penalty of 50 percent and interest of ten percent per annum of the gross tax due.
- (e) The dealer or other person liable for the tax shall be notified by certified mail of such deficiency and such tax, penalty and interest assessed shall be due and payable within ten days after notice of such deficiency has been issued. Every dealer or other person liable for the tax shall examine each package of cigarettes to ensure that the town stamp has been affixed thereto prior to offering them for sale.
- (f) Any dealer or other person liable for the tax who shall receive cigarettes not bearing the town stamp shall, within one hour of receipt of such cigarettes, commence and with all reasonable diligence continue to affix the town stamp to each and every package of cigarettes until all unstamped packages of cigarettes have been stamped and before offering such cigarettes for sale. Any dealer or other person liable for the tax who has notified the town that he is engaged in interstate or intrastate business shall be permitted to set aside such part of his stock as may be legally kept for the conduct of such interstate or intrastate business (that is, cigarettes held for sale outside the jurisdiction of the town) without affixing the stamps required by this article. Any such interstate or intrastate stock shall be kept entirely separate and apart from the town-stamped stock, in such a manner as to prevent the co-mingling of the interstate or intrastate stock with the town stock. Any dealer or other person liable for the tax found to have had untaxed cigarettes which have been lost, whether by negligence, theft, or any other unaccountable loss, shall be liable for and shall pay the tax due thereon.
- (g) It shall also be the duty of each dealer or other person liable for the tax and he is hereby

required to maintain and keep for a period of three years, not including the current calendar year, records of cigarettes received, sold, stored, possessed, transferred or handled by him in any manner, whatsoever, whether the same were stamped or unstamped, to make all such records available for audit, inspection and examination and to make available at all reasonable times the means, facilities and opportunity for making such audit, inspection or examination upon demand of the town.

Sec. 16-75. - Registered agents.

- (a) Any dealer or other person liable for the tax who shall sell, use, store, possess, distribute or transport cigarettes within or into the town shall first make application to the town to qualify as a registered agent. Such application blank, which shall be supplied upon request, shall require such information relative to the nature of the business engaged in by said applicant as the town deems necessary. Any applicant whose place of business is outside the town shall automatically, by filing his application, submit himself to the town's legal jurisdiction and appoint the town treasurer as his agent for any service of lawful process.
- Upon receipt of the properly completed application, the town shall issue to said applicant a permit to qualify him as a registered agent to purchase, sell, use, store, possess, distribute or transport within or into the town, town-stamped cigarettes.
- (b) After adoption of this article, dealers or other persons liable for that tax who shall sell, use, store, possess, distribute or transport tobacco products within or into the town shall be allowed 30 days to become qualified as a registered agent.

(c) All money collected as cigarette taxes under this ordinance shall be deemed to be held in trust by the dealer collecting the same until remitted to the town.

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Sec. 16-76. - Notice of intention by retail dealers.

- (a) Retail dealers who shall sell, offer for sale, store, possess, distribute, purchase, receive or transport cigarettes in or into the town shall notify the town in writing, of the supplier of such cigarettes and the name and address and the Virginia Retail Sales and Use Certificate of Registration number for each separate place of business. Possession of a Virginia State Retail Sales and Use Tax Certificate and a Virginia State Retail Tobacco License and, where applicable, a retail business license issued by the town for each separate place of business by a retail dealer shall be considered sufficient written notification to the town.
- (b) No retail dealer, as defined herein, who shall have complied with the provisions of the article and who purchases only tax-paid town-stamped cigarettes for each separate place of business shall be required to qualify as a registered agent.

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Sec. 16-77. - Requirements for retail dealers

- (a) Retail dealers who shall sell, offer for sale, store, possess, distribute, purchase, receive or transport cigarettes for the purpose of sale within the town shall purchase cigarettes only from registered agents giving or supplying the business trade name and business address of the location where the cigarettes will be placed for sale to the public. Cigarettes purchased for personal use cannot be brought into a business for resale. Only properly registered and licensed retail stores may sell cigarettes to the public. To be properly registered and licensed, a retail store must first have a valid Virginia state sales and use tax certificate and a valid retail business license. Cigarettes must be purchased and stored separately for each business location. All copies of cigarette purchase invoices/receipts must be retained by the

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retailer for a period of three (3) years and shall be made available to agents of the town upon request for use in conducting audits and investigations. All copies of cigarette purchase invoices/receipts must be stored at the business retail location for a period of one (1) year from date of purchase. Failure to provide cigarette invoices/receipts may result in confiscation of cigarettes until receipts can be reviewed by the town to verify the proper tax has been paid. It is the responsibility of each retail location to insure that all cigarettes placed for sale or stored at that location be properly taxed and stamped. Cigarettes found without the town stamp or the proper jurisdictional tax paid will be seized by agents of the town.

- (b) Retail dealers must make their place of business available for inspection by designated Tobacco Revenue Agents of the town to insure that all cigarettes are properly tax-stamped and all cigarette taxes are properly paid.

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Sec. 16-787. - Sale of cigarettes in vending machines; contraband.

- (a) Any cigarettes placed in any coin-operated vending machine shall be presumed for sale within the town. Any vending machine located within the town containing cigarettes placed so as to not allow visual inspection of the town stamp through the viewing area as provided for the vending machine manufacturer shall be in violation of this article.
- (b) Any cigarettes, coin-operated vending machines, counterfeit stamps, or other property found in violation of this article shall be declared contraband goods and may be seized by the town. In addition to any tax due, the dealer or other person liable for the tax possessing such untaxed cigarettes shall be subject to civil and criminal penalties herein provided.
- (c)

In lieu of seizure, the town may seal such vending machines to prevent continued illegal sale or removal of such cigarettes. The removal of such seal from a vending machine by any unauthorized person shall be a violation of this article. Nothing in this article shall prevent the seizure of any vending machine at any time after it is sealed.

- (d) All cigarette vending machines shall be plainly marked with the name, address and telephone number of the owner of said machine.

Sec. 16-798. - Illegal acts.

- (a) It shall be unlawful and a violation of the article for any dealer or other person liable for the tax:
- (1) To perform any act or fail to perform any act for the purpose of evading the payment of any tax imposed by this article or of any part thereof, or to fail or refuse to perform any of the duties imposed under him under the provisions of the article or to fail or refuse to obey any lawful order which may be issued under this article; or
 - (2) To falsely or fraudulently make, or cause to be made, any invoices or reports, or to falsely or fraudulently forge, alter or counterfeit any stamp, or to procure or cause to be made, forged, altered or counterfeited any such stamp, or knowingly and willfully to alter, publish, pass or tender as true any false, altered, forged or counterfeited stamp or stamps; or
 - (3) To sell, offer for sale, or authorize or approve the sale of any cigarettes upon which the town stamp has not been affixed; or
 - (4) To possess, store, use, authorize or approve the possession, storage or use of any cigarettes in quantities of more than 60 packages upon which the town stamp has not been affixed; or
 - (5) To transport, authorize or approve the transportation of any cigarettes in quantities of more than 60 packages into or within the town upon which the town stamp has not been affixed, if they are:
 - a. Not accompanied by a bill of lading or other document indicating the true name and address of the consignor or seller and the consignee or purchaser and the brands and quantity of cigarettes transported; or
 - b. Accompanied by a bill of lading or other document which is false or fraudulent in whole or part; or
 - c. Accompanied by a bill of lading or other document indicating:
 1. A consignee or purchaser in another state or the District of Columbia who is not authorized by the law of such other jurisdiction to receive or possess such tobacco products on which the taxes imposed by such other jurisdiction have not been paid unless the tax on the jurisdiction of destination has been paid and said cigarettes bear the tax stamps of the jurisdiction; or
 2. A consignee or purchaser in the Commonwealth of Virginia but outside the taxing jurisdiction who does not possess a Virginia Sales and Use Tax Certificate, a Virginia retail tobacco license and, where applicable, or a business license and a retail tobacco license issued by the local jurisdiction of destination; or
 - (6) To reuse or refill with cigarettes any package from which cigarettes have been removed, for which the tax imposed has been theretofore paid; or
 - (7) To remove from any package any stamp with intent to use or cause the same to be used after same has already been used or to buy, sell, or offer for sale or give away any

used, removed, altered or restored stamps to any person, or to reuse any stamp which had therefore been used for evidence of the payment of any tax prescribed by this article or to sell, or offer to sell, any stamp provided for herein.

Sec. 16-8079. - Jeopardy assessment.

If the town determines that the collection of any tax or any amount of tax required to be collected and paid under this article will be jeopardized by delay, the town shall make an assessment of the tax or amount of tax required to be collected and shall mail or issue a notice of such assessment to the taxpayer together with a demand for immediate payment of the tax or of the deficiency in tax declared to be in jeopardy including penalties and interest. In the case of a current period, for which the tax is in jeopardy, the town may declare the taxable period of the taxpayer immediately terminated and shall cause notice of such finding and declaration to be mailed or issued to the taxpayer together with a demand for immediate payment of the tax based on the period declared terminated and such tax shall be immediately due and payable, whether or not the terms otherwise allowed by this article for filing a return and paying the tax has expired.

Sec. 16-810. - Erroneous assessment: notices and hearings in the event of sealing of vending machines or seizure of contraband property.

- (a) Any person assessed by the town with a cigarette tax, penalties and interest or any person whose cigarettes, vending machines and other property have been sealed or seized under processes of this article who has been aggrieved by such assessment, seizure, or sealing may file a request for a hearing before the town for a correction of such assessment and the return of such property seized or sealed.
- (b) Where holders of property interest in cigarettes, vending machines or other property known at time of seizure or sealing, notice of seizure or sealing shall be sent to them by certified mail within 24 hours. Where such holders of property interests are unknown at time of seizure or sealing, it shall be sufficient notice to such unknown interest holders to post such notice to a door or wall of the room or building which contained such seized or sealed property. Any such notice of seizure or sealing shall include procedures for an administrative hearing for return of such property seized or sealed as well as affirmative defenses set forth in this section which may be asserted.
- (c) Such hearing shall be requested within ten days of the notice of such assessment, seizure, or sealing and shall set forth the reasons why said tax, penalties and interest and cigarettes, vending machines or other property should be returned or released. Within five days after receipt of such hearing request the town shall notify the petitioner by certified mail of a date and time for the informal presentation of evidence at a hearing to be held within 15 days of the date notification is mailed. Any such request for hearing shall be denied if the assessed tax, penalties and interest has not been paid as required or if the request is received more than ten days from first notice to the petitioner of such seizure or sealing. Within five days after the hearing, the town shall notify the petitioner, by registered mail, whether his request for a correction has been granted or refused.
- (d) Appropriate relief shall be given by the town if it is proven by the preponderance of the evidence that the illegal sale or use of such seized cigarettes or vending machine or other property was not intentional on the part of the petitioner, and that said seized cigarettes were in the possession of a person other than the petitioner without the petitioner's consent at the

time said cigarettes, vending machines or other property were seized or sealed or that petitioner was authorized to possess such untaxed cigarettes. If the town is satisfied that the tax was erroneously assessed, it shall refund the amount erroneously assessed together with any interest and penalties paid thereon and shall return any cigarettes, vending machines or other property seized or sealed to the petitioner. Any petitioner who is unsatisfied with the written decision of the town may within 30 days of the date of said decision, appeal such decision to the appropriate court in the jurisdiction where the seizure or sealing occurred.

Sec. 16-821. - Disposal of seized property.

Any seized and confiscated cigarettes, vending machines or other property used in the furtherance of any illegal evasion of the tax may be disposed of by sale or other method deemed appropriate by the town after any petitioner has exhausted all administrative appeal procedures. No credit from any sale of cigarettes, vending machines, or other property seized shall be allowed toward any tax and penalties assessed.

Sec. 16-832. - Extensions.

The town, upon a finding of good cause may grant an extension of time to file a tax report upon written application therefore, until the end of the calendar or fiscal month in which any tax report is due hereunder, or for a period not exceeding 30 days. In no case shall a request for an extension of time to file a tax report be granted by the town when such request is not received within the due date for filing such tax report. No interest or penalty shall be charged, assessed or collected by reason of the granting of such an extension. Where such extension is granted beyond the end of the calendar or fiscal month in which any tax report is due, hereunder, interest on the tax at a rate of ten percent per annum shall be charged.

Sec. 16-843. - Penalty for violation of article.

Any persons violating any of the provisions of this article shall be guilty of a class I misdemeanor. Such fine and/or imprisonment shall not relieve any such person from the payment of any tax, penalty or interest imposed by this article.

Sec. 16-854. - Each violation a separate offense.

The sale of any quantity or the use, possession, storage or transportation of more than 60 packages of cigarettes upon which the town stamp has not been affixed shall be and constitute a separate violation. Each continuing day of violation shall be deemed to constitute a separate offense.

Sec. 16-865. - Severability.

If any section, phrase, or part of this article should for any reason be held invalid by a court of competent jurisdiction, such decision shall not affect the remainder of the article, and every remaining section, clause, phrase or part thereof shall continue in full force and effect.

Attachment 16



Berryville Police Department

101 Chalmers Ct., Suite A, Berryville, Virginia 22611

policeadmin@berryvilleva.gov

(540) 955-3863 (540) 955-0207 (Fax)

W. Neal White – Chief of Police

MEMO

DATE: 04/08/2015

TO: Keith Dalton – Town Manager

FROM: Chief W. Neal White

CC:

RE: April 14, 2015 Town Council Report

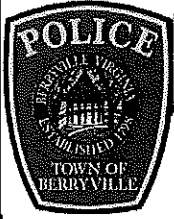
Staffing

The department is still in the application process to fill the vacancy left with the resignation of Scott Reagan. In addition, Officer Jorge Zavala has resigned from the department effective April 5, 2015. This leaves the department with two vacancies to fill. Officer Joseph Shoremount is still in the process of completing the field training program and well on his way towards completion.

Body Worn Cameras

The department has utilized video technology for quite some time now to record events as evidence and as a way to mitigate any citizen concerns or complaints. We have utilized in car video cameras and more recently outfitted every officer with a camera they could wear on their uniform. The first generation of the cameras was supplied to use through our insurer, Virginia Municipal League. These cameras were useful, but truly lacked back end support in the form of software. We have recently upgraded to a new body worn camera called the Axon manufactured by the TASER Corporation. These cameras are designed for law enforcement use and the specifications are more rugged and user friendly for better deployment in the field. These cameras were purchased using a \$2,000.00 grant from Virginia Municipal League and existing line item budget funds. In addition, the cameras are supported by a software module called evidence.com which allows for a more efficient audit trail and chain of custody documentation.

The cameras are deployed in the field now and officers have received training on their use as well as the policy which governs the use of body worn cameras.



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Public Praise

Attached with this memo you will find the inside of a card that was received at the department. On March 9, 2015 Officer Terry Fritts and Officer Joe Shoremount responded to the Johnson-Williams Community Apartments for an open 911 line. In this incident, the caller had been able to dial 911, but when dispatchers picked up the line there was no voice. The officers were dispatched to assess the situation and found that the called had collapsed without a pulse and not breathing. The two officers initiated the life saving measure of CPR until rescue personnel arrived. Unfortunately in this instance the caller did not survive. Their efforts did make an impact on the family members who wanted to praise them for their efforts. A job well done on both the parts of Officer Fritts and Officer Shoremount.

Upcoming Events

The department is in the planning stages of a Bike to School Day event at Johnson-Williams Middle School. In conjunction with the schools and Christy Dunkle, the department will distribute information about cycling safety at the school during lunch on **May 6, 2015**. After school, the department plans to hold a bicycle rodeo on the tennis courts. A grant has also been applied for in order to purchase bicycle lights, a program that has historically had great success.

National Police Week is May 10, 2015 through May 16, 2015. National Peace Officers Memorial Day is **May 15, 2015**. This is a day to remember those who have fallen in the line of duty protecting the lives of others in their communities. I would ask that we all take a moment on May 15, 2015 to reflect on the vital and dangerous service that all peace officers across the United States provide, especially those who have made the ultimate sacrifice.



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W. Neal White -- Chief of Police

POLICE AND SECURITY REPORT

Month: March	Year To Date	March	February
Year: 2015	2015	2015	2015
Total Miles Traveled:	11,520	3,647	3,557
Total Man Hours:	3,680	1,228	1,220

Complaints Answered

911 Hang Up:	3	1	1
Alarms:	28	8	12
Animal Complaint:	28	13	6
Assault And Battery:	6	2	3
Assist County:	13	6	1
Auto Larceny:	0	0	0
Burglary:	1	0	1
Civil Complaints:	21	7	9
Disturbance (Non Violent):	10	3	1
Domestic Disturbance:	3	2	0
Drunk In Public:	3	2	1
Forgery & Uttering:	1	1	0
Fraud:	5	2	2
Grand Larceny:	2	0	1
Harassment/Intimidation:	9	4	1
Homicide:	0	0	0
Juvenile Related:	10	5	4
Noise:	0	3	0
Petty Larceny:	5	1	2
Public Service:	14	5	3
Rape:	0	0	0
Robbery:	0	0	0
Runaway:	0	0	0
Shoplifting:	1	0	1
Suspicious Activity:	48	18	16
Trespassing:	1	1	0
Vandalism:	8	2	4
Welfare Check:	29	14	6
Miscellaneous Complaints:	56	18	18
Total Complaints Answered:	308	118	93



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W. Neal White – Chief of Police

Traffic

Accidents Investigated:	12	3	6
Assist Motorist:	3	2	0
Child Safety Seat Install:	8	1	4
Funeral Escort:	13	4	1
Hit & Run:	2	0	1
Parking Tickets:	38	17	15
Traffic Warnings:	86	28	20

Traffic Summons Issued

Defective Equipment:	1	1	0
Driving Suspended:	0	0	0
Expired Inspection:	8	1	2
Expired Registration:	6	1	2
Fail To Obey Highway Sign:	8	1	3
Fail To Obey Traffic Signals:	2	0	1
Fail To Stop/Lights & Siren:	0	0	0
Fail To Yield Right Of Way:	1	0	1
Hit And Run:	0	0	0
No Liability Insurance:	0	0	0
No Operator's License:	5	2	0
No Seat Belt:	0	0	0
Reckless Driving:	2	0	0
Speeding:	28	8	9
Miscellaneous Summons:	2	2	0
Total Traffic Summons Issued:	63	16	18



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W. Neal White – Chief of Police

Criminal Arrests Made

Abduction:	0	0	0
Arson:	0	0	0
Assault And Battery:	3	1	1
A & B On Police Officer:	1	1	0
Auto Larceny:	0	0	0
Breaking And Entering:	1	0	0
Capias:	1	0	1
Disorderly Conduct:	1	1	0
Driving While Intoxicated:	2	0	1
Drunk In Public:	3	2	1
Fail To Obey Police Officer:	0	0	0
Fail To Pay Parking Ticket:	5	5	0
Forgery:	0	0	0
Fraud:	0	0	0
Grand Larceny:	1	1	0
Homicide:	0	0	0
Illegal Drugs/Paraphernalia	7	0	2
Petty Larceny:	1	0	1
Possess Alcohol Underage:	0	0	0
Protective Order:	7	5	1
Rape:	0	0	0
Resisting Arrest:	0	0	0
Robbery:	0	0	0
Shoplifting:	0	0	0
Trespassing:	0	0	0
Vandalism:	1	0	0
Weapons Violation	0	0	0
	11	5	3
Miscellaneous Criminal Arrests:			
Juvenile Arrest Total:	2	1	0
Total Criminal Arrests:	45	21	11

Found Open At Business In Town

Doors:	7	3	3
Windows:	0	0	0
Garage Doors Found Open:	0	0	0

On behalf of the family of David Wiley,
I would like to thank the officers who
responded to the 911 call at his residence
on Mon. 3/9/15.
We know the officers attempted CPR until
the rescue squad arrived.

I do not know which officers responded,
however I feel it doesn't matter
because I am sure any of the officers
on the force would have attempted
to save the life of a Berryville
resident.

The town is very Blessed to have
Chief White and all the other officers
watching over the citizens of
Berryville.

Some people would say you were
only doing your job, but everyone
knows that in these times there
are a lot of people who choose
to do the basic amount of work.
There job requires.
Thank You again.

...and that's
what made it
so special.

Thank You

May God Bless and
watch over each and
everyone of you.

Tammy McDonald

Mary Brou

Sandy Everhart

Janice Mercer

Carol Lee

Kenneth Chamblin

Attachment 17

Buckmarsh Street is scheduled to be repaved by a VDOT contractor this paving season. The paving will occur this paving season but we do not know exactly when VDOT's contractor will move in.

When the paving project was discussed with Town Council, concerns were expressed about the current pavement marking and it was asked whether the markings might be modified to return them to what they were prior to the paving in the early 2000's (a center turn lane was established at that time).

Since the center turn lane was established several things have come to light:

With the traffic pushed closer to the edge of the street section the condition of the pavement has deteriorated quickly. This deterioration required VDOT to complete work a few years ago in both the north and southbound lanes. Even after that work to address sub-base issues the street section has deteriorated (though not to the extent it had prior to the work on the sub-base).

Further, by pushing traffic closer to the street's edge it has become more difficult for motorists to edge out when leaving Taylor Street and Swan Avenue. With less than ideal sight distance at those locations the inability edge out makes entry onto Buckmarsh Street more of a challenge.

VDOT has requested that the Town provide its pavement marking preference to them by April 17.

Recorder Arnold has looked at this and has suggested that the Town Council advise VDOT that the Town's marking preference is as follows:

Starting at the intersection of Main and Buckmarsh Streets heading south –

From Main Street south to Crow Street no change (left turn lane and center turn lane)

From Crow Street to the south side of the entrance to Santorini Grill (108 South Buckmarsh Street) - no change (center turn lane)

From the south side of the entrance of the Santorini Grill (108 South Buckmarsh Street) to the approaches of the intersection of Buckmarsh and Hermitage mark with two yellow lines

Approaches of intersection of Buckmarsh and Hermitage as well as the intersection itself would remain the same (left turn lanes for Hermitage Blvd)

Attachment 18

Memo

To: Town Council
From: David Tyrrell
Date: April 3, 2015
Re: March 2015 Operations Report

The water treatment plant is in compliance for March with its monthly parameters. We sent a total of 10.114 MG water to the system with a daily average of 0.389 MGD and a daily max of 0.537 MG.

While we have had operational challenges due to high river turbidities we have had no significant problems with the water treatment plant in the past month.

VDH inspected the facility and found no significant issues. The condition of the 3MG tank was mentioned and it is recommended that the tank be painted as soon as possible. Additionally I have been informed that new regulations coming down the pike will require us to have a class 2 water operator on site at all times while the plant is in operation. Three of our operators are in need of acquiring this license.

Drought Conditions: Water levels in the river are running slightly above the historic average. There is no concern for drought at this time.

The wastewater plant is in compliance with its discharge permit for March per data received to date with our nutrient removal continuing to do very well. We treated a total of 12.77 MG with a daily average of 0.41 MGD and a daily max of 0.72 MGD. Flows increased this month due to wet weather.

The alum system is back on line. We have also taken the equalization tanks out of service and cleaned them for the summer months. Also with the rising water temps we are starting to make process adjustments to slowly return to the summer mode of operations. Preparations are being made to complete membrane recovery cleans in April with hypochlorite.

Work to locate phantom alarms appears to have finally been successful in March with no alarms or call-ins for no reason. The alarm appears to have been connected to a cyclic valve failure which did not give an alarm from the PLC to the SCADA.

Attached for review are data reports for the water and wastewater facilities and the latest InSight report for the membrane performance from GE.

FLWS AND CHEMICAL DOSAGES

March 2015

No. Connections Served: 1610
Population Served: 4185

DATE	Raw Water Treated MGD	Finished Water Produced MGD	Finished Water Delivered MGD	Hours in Service	Raw Water Chemicals												Finished Water Chemicals					
					Alum		Carbon		Chlorine		Fluoride		Polymer		KMnO4		Soda Ash		Chlorine		Corr Inhibitor	
					Lbs per Day	mg/L	Lbs per Day	mg/L	Lbs per Day	mg/L	Lbs per Day	mg/L	Lbs per Day	mg/L	Lbs per Day	mg/L	Lbs per Day	mg/L	Lbs per Day	mg/L		
1																						
2	0.592			18.0	20	4.1	5	1.0			6.8	1.38	0.132	0.027	4.0	0.8		16.0	3.2			
3	0.531			16.0	25	5.7	3	0.6			6.8	1.53	0.115	0.026	0.0	0.0		14.7	3.3			
4	0.523			16.0	20	4.6	5	1.1			3.7	0.84	0.130	0.030	4.0	0.9		14.7	3.4			
5	0.401			12.5	35	10.6	3	0.8			6.6	1.97	0.106	0.032	4.0	1.2		12.2	3.7			
6	0.4			12.3	61	18.2	4	1.1			3.5	1.06	0.101	0.030	0.0	0.0		12.3	3.7			
7	0.324			9.8	51	18.8	2	0.7			3.4	1.26	0.075	0.028	0.0	0.0		9.8	3.6			
8																						
9	0.49			15.0	76	18.6	4	1.0			6.7	1.63	0.123	0.030	4.0	1.0		15.0	3.7			
10	0.41			12.8	51	14.8	4	1.1			3.6	1.05	0.084	0.025	4.0	1.2		12.8	3.7			
11	0.533			16.5	71	16.0	4	0.9			6.8	1.53	0.106	0.024	0.0	0.0		16.5	3.7			
12	0.492			16.2	56	13.6	4	1.1			6.7	1.63	0.088	0.021	5.0	1.2		16.1	3.9			
13	0.481			14.8	61	15.2	4	1.1			6.7	1.67	0.104	0.026	4.0	1.0		14.7	3.7			
14																						
15	0.234			7.0	30	15.6	1	0.6			3.5	1.79	0.066	0.034	0.0	0.0		7.0	3.6			
16	0.511			15.5	56	13.1	4	0.9			6.7	1.58	0.097	0.023	0.0	0.0		15.5	3.6			
17	0.466			15.0	41	10.4	4	1.0			7.0	1.80	0.093	0.024	3.0	0.8		15.0	3.9			
18	0.421			13.0	41	11.6	3	0.8			3.2	0.92	0.106	0.030	0.0	0.0		11.9	3.4			
19	0.287			8.5	25	10.6	2	1.0			3.4	1.42	0.073	0.030	4.0	1.7		7.8	3.3			
20	0.267			8.0	25	11.4	3	1.2			3.4	1.53	0.064	0.029	0.0	0.0		7.3	3.3			
21	0.261			7.8	20	9.3	2	1.0			3.4	1.55	0.049	0.023	0.0	0.0		7.1	3.3			
22	Did Not Run																					
23	0.553			16.0	41	8.8	6	1.2			6.8	1.47	0.128	0.028	4.0	0.9		14.7	3.2			
24	0.53			14.8	35	8.0	5	1.1			6.7	1.52	0.123	0.028	3.0	0.7		11.7	2.6			
25	0.544			16.3	41	8.9	5	1.1			6.8	1.50	0.130	0.029	3.0	0.7		14.9	3.3			
26	0.423			12.5	30	8.6	3	0.9			3.3	0.93	0.083	0.024	0.0	0.0		10.4	3.0			
27	0.267			8.0	20	9.1	2	0.9			3.4	1.53	0.052	0.023	4.0	1.8		6.7	3.0			
28	0.128			3.5	5	4.7	1	0.9			10.3	9.69	0.026	0.024	0.0	0.0		2.9	2.7			
29	Did Not Run																					
30	0.549			16.8	46	10.0	4	0.9			6.8	1.49	0.131	0.029	4.0	0.9		14.0	3.0			
31	0.531			16.0	41	9.2	5	1.1			6.8	1.54	0.115	0.026	0.0	0.0		13.3	3.0			
Total	11.149	0.000		338.2	1024	289.6	91	25.2	0.0	0.00	142.8	45.8	2.50	0.701	54	14.6	0.0	314.9	87.71	0.0		
Maximum	0.592	0.000		18.0	76	18.8	6	1.2	0.0	0.00	10.3	9.7	0.13	0.034	5	1.8	0.0	16.5	3.93	0.0		
Minimum	0.128	0.000		3.5	5	4.1	1	0.6	0.0	0.00	3.2	0.8	0.03	0.021	0	0.0	0.0	2.9	2.64	0.0		
Average	0.429	0.000		13.0	39	11.1	4	1.0	#####	#####	5.5	1.8	0.10	0.027	2	0.6	#####	12.1	3.37	#####		

SIGNED: (OPERATOR IN RESPONSIBLE CHARGE)

RAW WATER SOURCE(S) USED DURING MONTH: (SOURCE/DATES)

PRINTED NAME

David A Tyrell

Shenandoah River - Entire Month

TITLE: OPERATOR CLASSIFICATION
DPOR CERTIFICATION NO.

Class 1

1955002813

Berryville STP Monthly DMR Data

March 2015

Date	Effluent Flow MGD	Eff pH SU	Eff Temp Deg C	Eff CBOD mg/l	Eff CBOD KG/D	Eff TSS mg/l	Eff TSS KG/D	Effluent DO River mg/l	Effluent DO WWTP mg/l	Eff NO2/ NO3 mg/l	Eff TKN mg/l	Eff TKN KG/D	Eff Total N mg/l
3/1/2015	0.23	7.5	10.7					12.4	11.6				
3/2/2015	0.23	7.6	10.5					12.2	11.6				
3/3/2015	0.24	7.5	12.7	0	0	0	0.0	14.4	14.2	1.50	0.9	0.9	2.4
3/4/2015	0.25	7.3	10.9	0	0			12.3	12.4				
3/5/2015	0.48	7.5	13.0					12.5	12.1				
3/6/2015	0.52	7.5	11.1	0	0			12.1	12.0				
3/7/2015	0.40	7.7	9.8					12.8	12.4				
3/8/2015	0.37	7.6	11.8					12.3	11.8				
3/9/2015	0.41	7.5	11.7					11.7	11.1				
3/10/2015	0.58	7.6	12.3	0	0			11.2	10.7				
3/11/2015	0.72	7.5	14.1	0	0			11.7	10.7				
3/12/2015	0.47	7.6	12.6	0	0			11.5	10.8				
3/13/2015	0.48	7.5	12.4					11.2	10.7				
3/14/2015	0.47	7.5	13.9					11.6	10.7				
3/15/2015	0.49	7.6	13.4					11.5	10.6				
3/16/2015	0.49	7.5	13.7					10.7	10.8				
3/17/2015	0.51	7.3	14.8	0	0	0	0.0	10.9	10.7	0.40	0.9	1.8	1.3
3/18/2015	0.50	7.4	13.6	0	0			11.0	10.7				
3/19/2015	0.48	7.4	13.8	0	0			11.1	11.0				
3/20/2015	0.37	7.3	13.6					10.9	10.4				
3/21/2015	0.41	7.4	13.4					10.5	10.3				
3/22/2015	0.41	7.6	13.9					10.8	10.4				
3/23/2015	0.42	7.5	13.2					11.0	10.3				
3/24/2015	0.41	7.7	14.5	0	0			10.8	10.4				
3/25/2015	0.42	7.5	13.5	0	0			11.0	10.3				
3/26/2015	0.42	7.5	13.4	0	0			11.3	10.2				
3/27/2015	0.41	7.6	14.7					12.9	12.2				
3/28/2015	0.33	7.4	13.8					10.9	9.9				
3/29/2015	0.30	7.4	14.0					10.9	10.6				
3/30/2015	0.30	7.8	13.6					10.7	9.8				
3/31/2015	0.29	7.5	14.0					11.0	10.6				
Minimum	0.23	7.3	9.8	0	0	0	0.0	10.5	9.8	0.40	0.9	0.9	1.3
Maximum	0.72	7.8	14.8	0	0	0	0.0	14.4	14.2	1.50	0.9	1.8	2.4
Total	12.77	232.8	402.4	0	0	0	0.0	357.8	342.0	1.90	1.8	2.7	3.7
Average	0.41	7.5	13.0	0	0	0	0.0	11.5	11.0	0.95	0.9	1.3	1.9
Geo Mean	0.40	7.5	12.9	1	1	1	1.0	11.5	11.0	0.77	0.9	1.3	1.8

Berryville STP Monthly DMR Data

March 2015

Date	Eff Total N KG/D	Eff Total P mg/l	Eff Total P KG/D	E-Coli No/100ml
3/1/2015				
3/2/2015				
3/3/2015	2.4	0.16	0.2	1
3/4/2015				
3/5/2015				
3/6/2015				
3/7/2015				
3/8/2015				
3/9/2015				
3/10/2015				1
3/11/2015				
3/12/2015				
3/13/2015				
3/14/2015				
3/15/2015				
3/16/2015				
3/17/2015	2.6	0.18	0.4	1
3/18/2015				
3/19/2015				
3/20/2015				
3/21/2015				
3/22/2015				
3/23/2015				
3/24/2015				1
3/25/2015				
3/26/2015				
3/27/2015				
3/28/2015				
3/29/2015				
3/30/2015				
3/31/2015				
Minimum	2.4	0.16	0.2	1
Maximum	2.6	0.18	0.4	1
Total	5.0	0.34	0.5	4
Average	2.5	0.17	0.3	1
Geo Mean	2.5	0.17	0.2	1



Berryville Biweekly InSight Report

Date: 3/26/2015

From: Jeny Chacko - GE Water & Process Technologies

To: David Tyrrell, Jeff Capps - Town of Berryville

cc: Phil Lander, Al Farrell, Matthew Stapleford - GE Water & Process Technologies

System Equipment

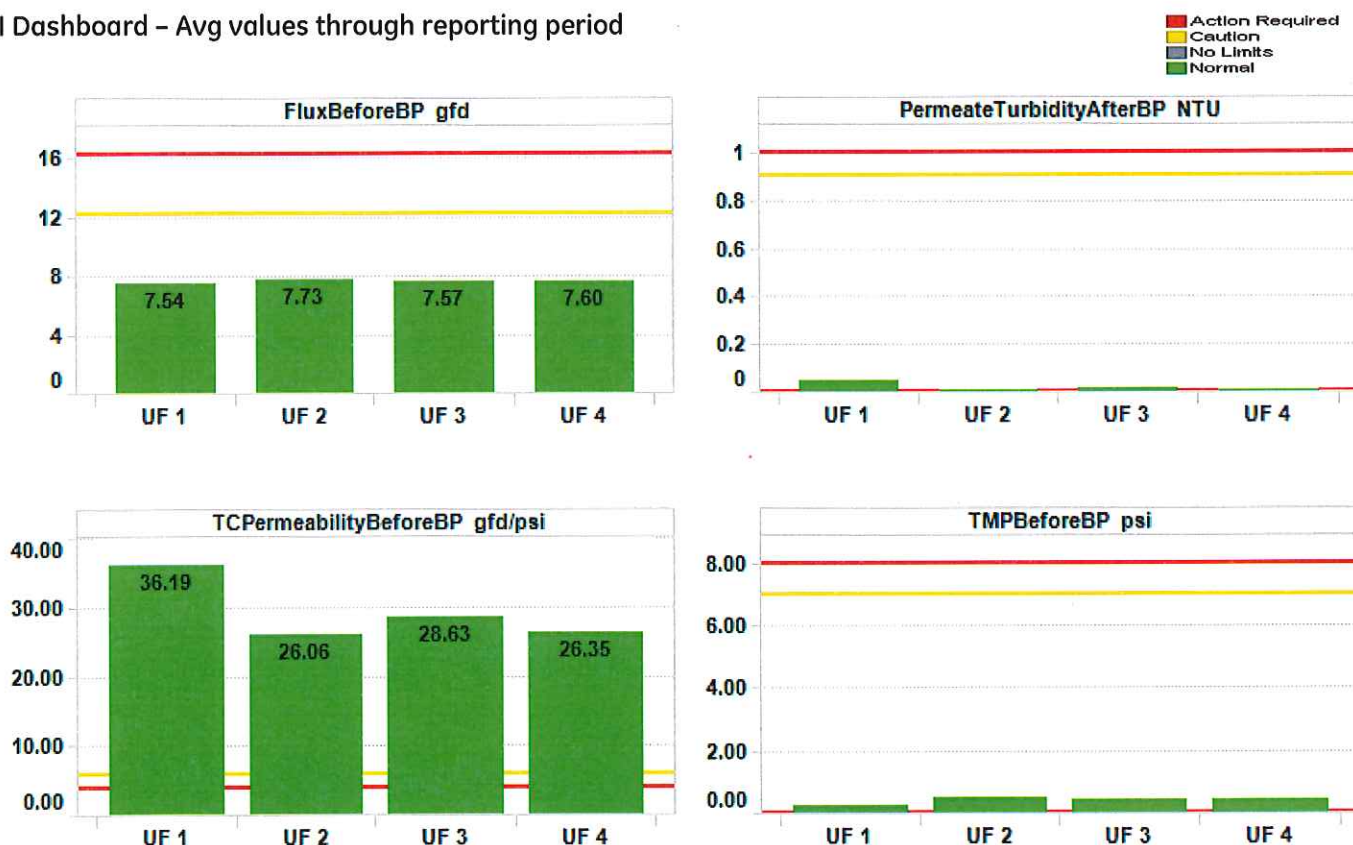
4 × ZW trains, each 3 cassettes, 2x48/1x42 500D (surface area 46920 sq. ft. per train)

Cleaning Strategy

Maintenance clean dose concentrations - 2 NaOCl/ Hypo @ 200 ppm per week, 1 Citric acid @ 2000 ppm per week

Recovery clean soak concentrations - 2 NaOCl/ Hypo @ 1000 ppm per year, 2 Citric acid @ 2000 ppm per year

KPI Dashboard – Avg values through reporting period





Plant Summary

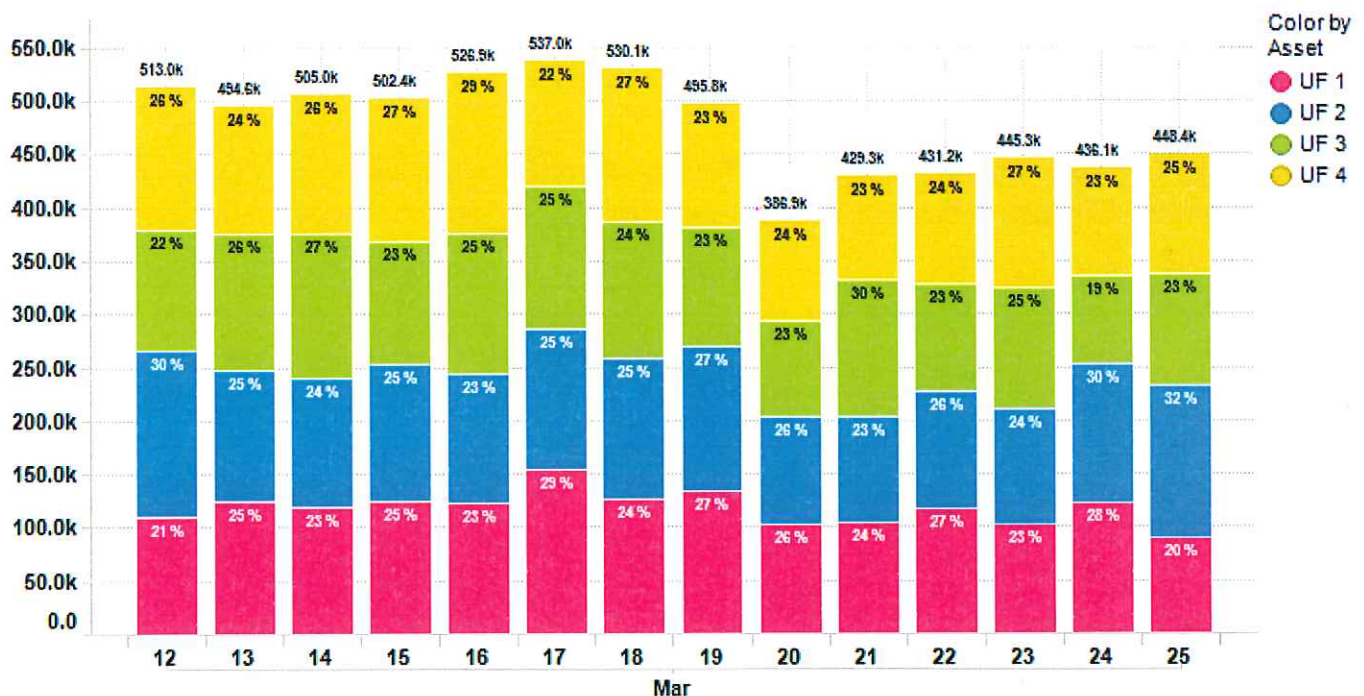
Production flows increased by 20% during this reporting period due to recent episodes of rain. The average daily plant permeate flow in the last two weeks was 477,300 Gallons with the highest daily flow on March 17th at 537,000 Gallons, which is 76% of the average daily flow. Flows were equally distributed among the four trains.

Trains operated at an average production flux of 7.5 gfd which is 66% of maximum design flux, with occasional spikes of 10-11 gfd. At these flow conditions, membrane permeability declined by 1-3 gfd/psi, however was well above the minimum 4 gfd/psi. Production TMPs were <1 psi 99% of the time.

Trains continued to operate well in relax mode. The random switch to backpulse mode coincides with occasional software upgrades.

During periods of increased flows it is recommended to revert to design maintenance cleaning schedule to help maintain membrane permeability between recovery cleans. Site is expected to carry out Hypo recovery cleans in April. As discussed, it is highly recommended to ensure that chlorine residual is maintained within 30% of the target soak concentration of 1000 ppm during the 8-10 hour soak.

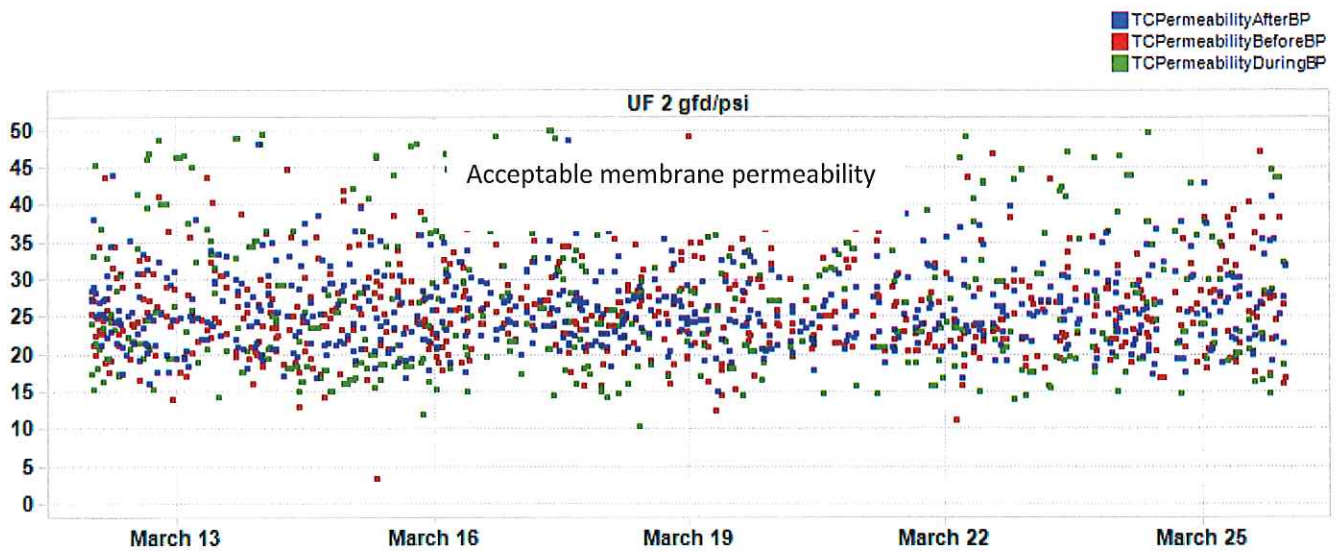
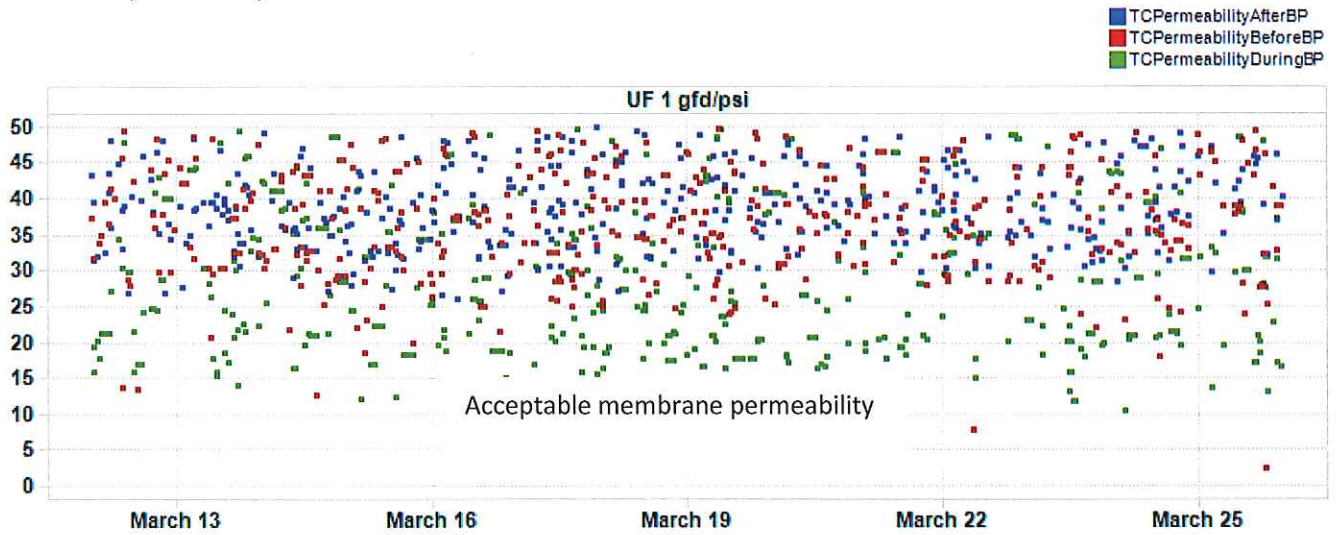
Permeate turbidity readings continued to come in at 0 at random intervals during production. Dave – Can you please confirm if the turbidimeters are functioning as designed?

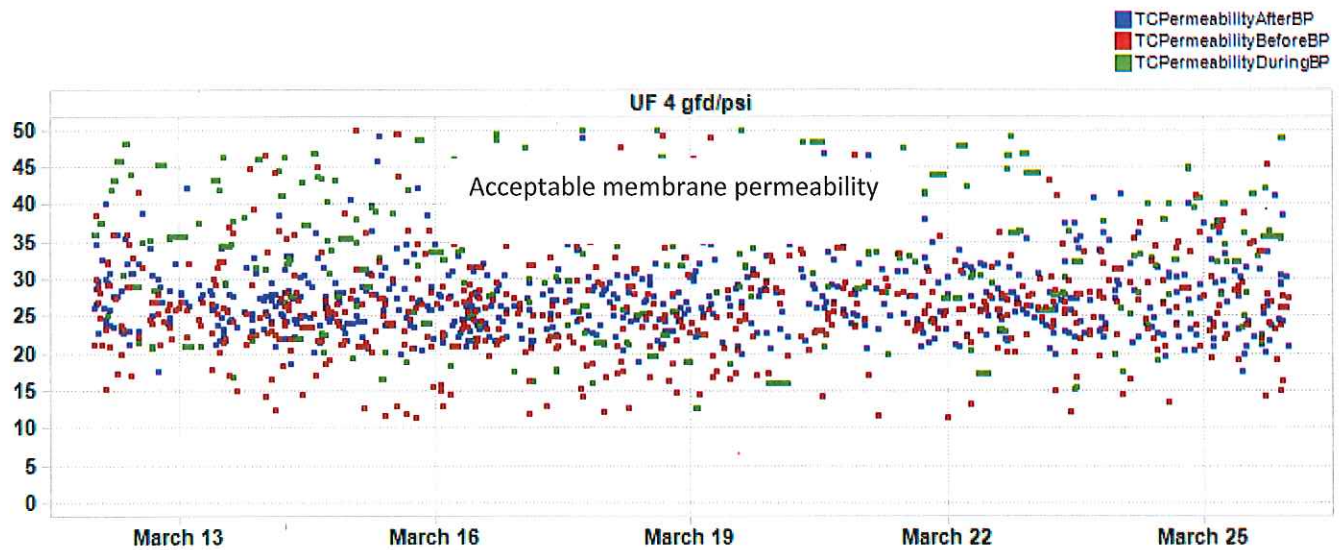
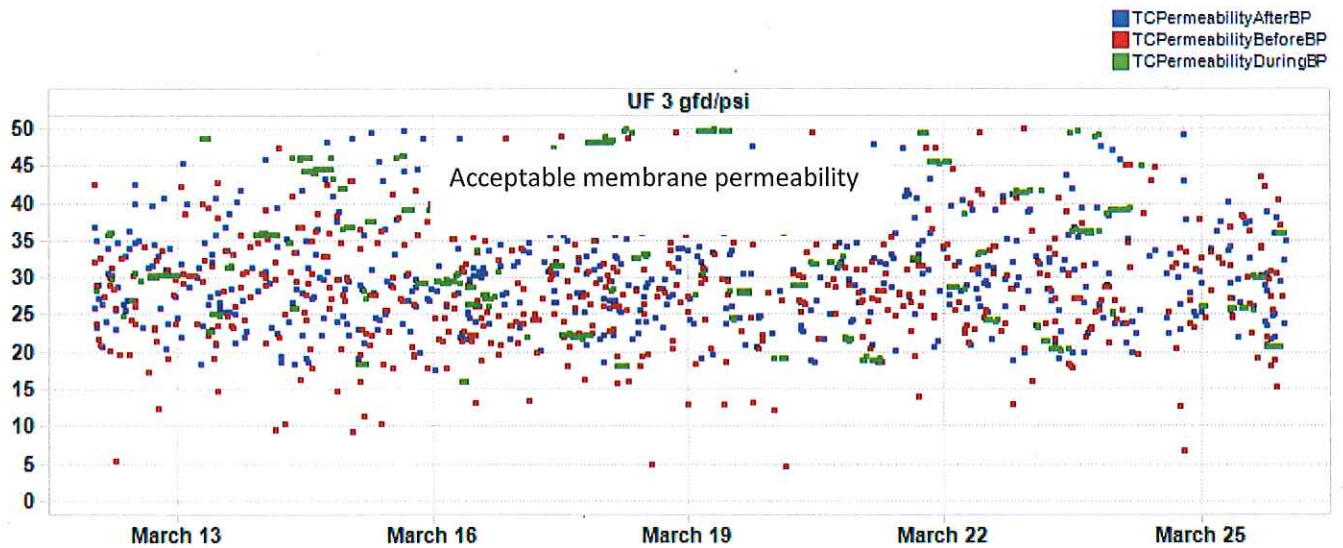


Average Daily permeate flow from 3/12/2015 to 3/25/2015 is 477.3k gal with a maximum daily flow of 537.0k gal.



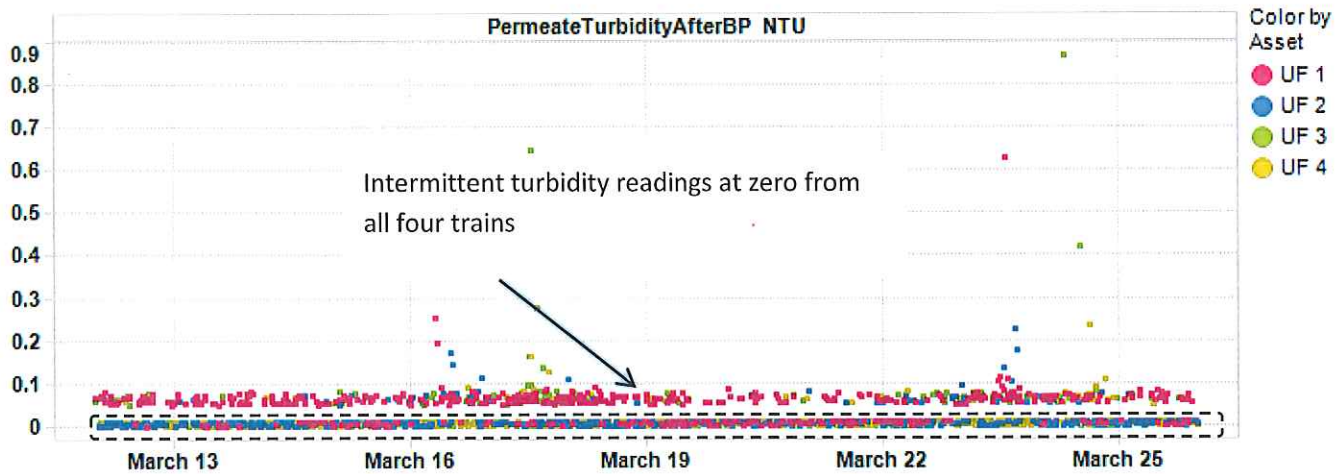
TC Permeability Trends By Train



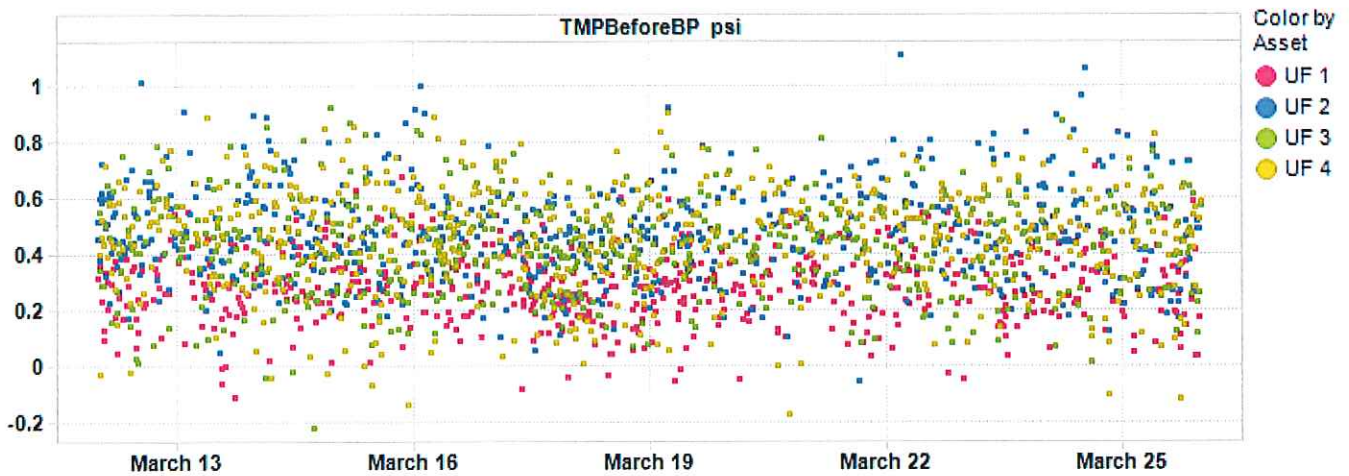




Permeate Turbidity Trend

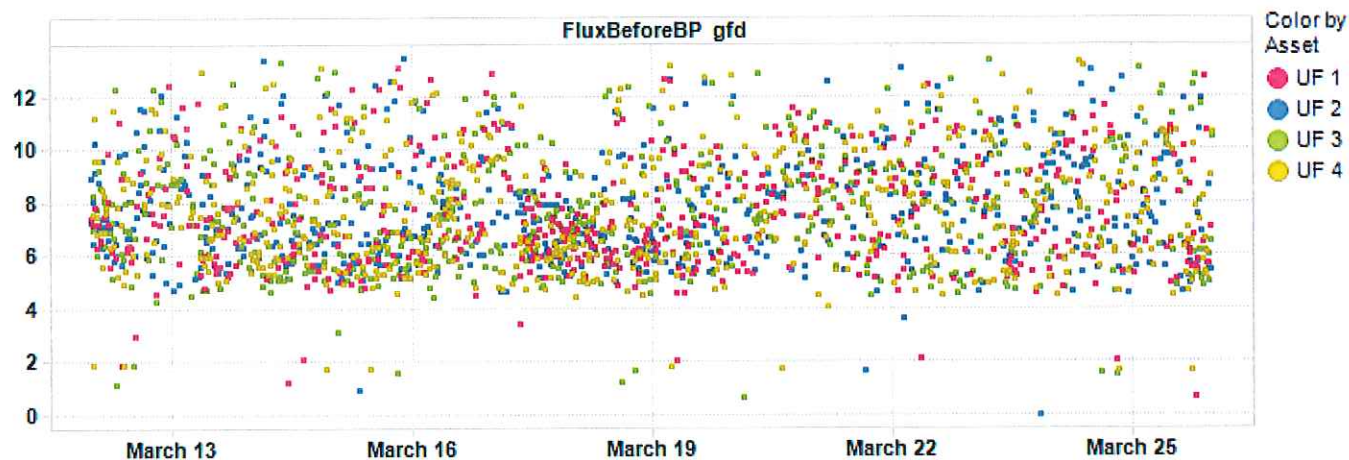


Before BPTMP Trend





Before BP Flux Trend




Asset Summary

KPI Parameters	Value/Change	UF 1	UF 2	UF 3	UF 4
FluxBeforeBP gfd	Value	7.54	7.73	7.57	7.60
	Change	-1.88 %	-0.95 %	-1.00 %	0.16 %
PermeateTurbidityAfterBP NTU	Value	0.04	0.01	0.02	0.01
	Change	-60.04 %	-389.40 %	-296.75 %	-510.52 %
TCPermeabilityBeforeBP gfd/psi	Value	36.19	26.06	28.63	26.35
	Change	-3.88 %	-5.34 %	-10.23 %	-10.24 %
TMPBeforeBP psi	Value	0.28	0.47	0.41	0.45
	Change	-8.17 %	-3.13 %	1.62 %	1.66 %
TotalPermeateFlowDaily gal	Value	118.19k	124.51k	115.20k	119.41k
	Change	20.27 %	23.99 %	13.70 %	12.48 %



Plant Summary

KPI Parameters	Value/Change	UF Plant
PermeateTemperature F 	Value	40.41
	Change	13.17 %
TotalPermeateFlowDaily gal	Value	477.30k
	Change	17.71 %

Contract Expiry Date : 10/26/2015

For InSight technical assistance please email insightsupport@ge.com or please call technical support at 1 866 271 5425 or 905 469 7723 and follow the prompts, if you require after hours assistance please contact the 24/7 Emergency number provided in your plant documentation. This email is a summary of issues identified during a manual review of InSight data from the time period above. This review is an analysis of data that is logged by InSight and identifies key plant performance issues determined from this data. This data review was not focused on minor data issues but on identifying possible existing and/or upcoming critical operational issues.

This review was prepared by GE Water & Process Technologies solely to assist water treatment plant owners and/or operators in analyzing and optimizing plant performance and is not intended to be used or relied upon for regulatory compliance or any other purpose. The content of this review is based in whole or in part on operation data obtained from the plant using InSight software. GE Water & Process Technologies makes no representations or warranties as to the accuracy of the plant data utilized in the preparation of this review. GE Water & Process Technologies accepts no liability for consequences or actions taken in whole or in part by any person on the basis of this review or its contents

Attachment 19

Report of the Department of Public Works

April 9, 2015

The month of March started out cold and snowy. We experienced several snow and ice events. Cold temperatures also returned for the first couple of weeks which caused some weather related problems. With the exception of a few minor breakdowns our removal equipment held up well.

We had one water break last month. An air release valve on Treadwell Street froze and broke. In order to abate the issue we had to excavate and replace the valve. We had several calls for high usage of water during this last billing period. During our process of checking for leaks we found three water services that were broken on the property owner's side of the meters.

We opened bids on the water improvement project for Battletown Drive. We only received two bids and both were a lot higher than the estimated cost. I have met with Mr. Dalton and we are now planning to do this project in house. I hope to start this project in late to mid-June and be completed by the end of July.

The new duplex parking meters and housings are on order and should be here by the end of May. Prior to their arrival we will be busy removing and repairing some of the existing single meter housings. We hope to have all the posts and the new duplex meters installed on Main Street by the end of June.

We had no sewer blockages or pump station issues this past month.

In the coming months we will be completing several projects on Buckmarsh Street prior to VDOT's paving work.

Street cleaning on secondary streets will begin next week and should be completed before the end of May.